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A N
E S S A Y
O N
G E N I U S.

B Y
ALEXANDER GERARD, D. D.

PROFESSOR OF DIVINITY IN KING'S COLLEGE,
ABERDEEN:

*Quid illa vis, quæ tandem est, quæ investigat occulta, quæ
inventio, atque excogitatio dicitur ?*

Cic. Quæst. Tusc. lib. i.

L O N D O N :

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THE Author of the following *Essay* had occasion, in writing on *Taste*, to consider its connexion with *Genius*. The attention which he bestowed on this latter faculty, in that one point of view, convinced him, that its Nature and its Principles admitted and required a fuller investigation than had ever been attempted, and determined him to enter on that investigation immediately after finishing his former work. Accordingly his plan was formed, the first part composed, and some progress made in the second part, so long ago as the year 1758. He was then in an office which favoured enquiries of this nature; his continuance in it would have afforded him the opportunity of compleating the

A 2 design

design in a short time; and the indulgent reception given by the Public to his *Essay on Taste* would have encouraged him to it: but being soon after removed to an office which necessarily directed his chief attention to subjects of a different kind, and fully occupied his time, he has been able to prosecute his design, with long and frequent interruptions, only as the immediate duties of his profession allowed him leisure. Intervals of such leisure have put it in his power to reduce his thoughts to the form in which they now appear. The *subject* is curious; of the *execution* the Public are the proper judges.

C O N T E N T S.

INTRODUCTION. — — Page 1

P A R T I.

Of the Nature of Geniùs. — 5

SECT. I. *Of the Province and Criterion of Genius.* — — — — — *ibid.*

SECT. II. *To what Faculty of the Mind, Genius properly belongs.* — — — — — 27

SECT. III. *How Genius arises from the Imagination.* — — — — — 39

SECT. IV. *Of the Influence of Judgment upon Genius.* — — — — — 71

SECT. V. *Of the Dependence of Genius on other intellectual Powers.* — — — — — 95

P A R T II.

Of the general Sources of the Varieties of Geniùs. — — — — — 107

SECT. I. *Of the Sources of the Varieties of Genius in the Imagination; particularly of the Qualities of Ideas which produce Association.* — — — — — 108

SECT. II. *Of the Influence of Habit on Association.* — — — — — 125

SECT.

SECT. III. <i>Of the Influence of the Passions on Association.</i>	— — —	147
SECT. IV. <i>Reflections on the Principles of Association. Ideas suggested, either by Sensations, or by other Ideas.</i>	— — —	184
SECT. V. <i>Of the Combination of the associating Principles.</i>	— — —	192
SECT. VI. <i>Of the Modifications of the associating Principles.</i>	— — —	197
SECT. VII. <i>Of the Predominance of the associating Principles.</i>	— — —	215
SECT. VIII. <i>Of Flexibility of Imagination.</i>		232
SECT. IX. <i>Of the Varieties of Memory, and their Influence on Genius.</i>	— — —	243
SECT. X. <i>Of the Varieties of Judgment, and their Influence on Genius.</i>	— — —	279

PART III.

Of the Kinds of Genius.	— — —	317
SECT. I. <i>Genius twofold; for Science, or for the Arts.</i>	— — —	318
SECT. II. <i>Of the Structure of Imagination which distinguishes the two Kinds of Genius.</i>	—	323
SECT. III. <i>How the two Kinds of Genius differ in respect of the Assistance which they derive from Memory.</i>	— — —	358
SECT. IV. <i>How the two Kinds of Genius differ in respect of the Assistance which they derive from Judgment.</i>	— — —	369
SECT.		

CONTENTS.

vii

SECT. V. <i>The two Kinds of Genius farther compared and distinguished.</i>	— —	378
SECT. VI. <i>Taste essential to Genius for the Arts.</i>		391
SECT. VII. <i>The Power of Execution necessary to Genius for the Arts.</i>	— —	416
SECT. VIII. <i>Of the Union of different Kinds of Genius.</i>	— — —	426

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WITH

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AN

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E S S A Y
O N
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IT is remarked by those who have considered the state of human knowlege with greatest attention, that the subjects of men's enquiries have been, in most cases, determined by accident, and not pursued with regular application, according to their dignity or their natural connexion. On this account, some subjects of the greatest importance have been totally neglected, and many more have been imperfectly examined, and prosecuted no farther than superficial observations spontaneously occurred, and casual inclination disposed men to attend to them. This has happened in all the sciences, but especially in the

B

science

science of human nature. It has seldom been explored with that care which is requisite in a subject so subtle and abstruse. Far from taking a complete survey of this curious region, men have satisfied themselves with some random incursions, visiting only a few tracts which happened to engage their curiosity, and penetrating even into these, only so far as some present view required.

ALL the same causes which produce such a superficial and fortuitous method of investigation with regard to other subjects, produce it likewise with regard to the human mind: and some circumstances render our enquiries on this subject, slight and accidental, which do not extend their influence to the others. The phenomena of the mind have not so great steadiness of existence, as the qualities of bodies. It is impossible to make experiments so purposely on the understanding or the passions, to pursue them so deliberately, or to repeat them so easily, as on material things. It is necessary to catch appearances as they happen to discover themselves, either immediately to a man's own consciousness, or by their effects in the conduct or conversation of other

other men. For this reason it requires long time, favourable opportunities, and incessant attention, to collect such a number of facts concerning any of the mental powers, as will be sufficient for deducing conclusions concerning them, by a just and regular induction.

THIS difficulty which attends the investigation of the principles of human nature, has contributed much to check the progress of men's enquiries concerning them, and to prevent some of the most important of them from being at all professedly analysed. Genius itself, the leading faculty of the mind, the grand instrument of all investigation, has scarce ever been examined with care. In the writings of those who treat with greatest accuracy of the intellectual powers, we find only a few incidental observations concerning Genius. It is confessed to be a subject of capital importance, without the knowledge of which a regular method of invention cannot be established, and useful discoveries must continue to be made, as they have generally been made hitherto, merely by chance. But it is reckoned a subject which can be reduced to no fixt or general principles; its phenome-

na are almost universally regarded as anomalous and inexplicable. It is however worth while to enquire, whether this be really the case, and to make an attempt at least, to explain the nature and varieties of Genius from the simple qualities of the human mind.

P A R T

P A R T I.

Of the Nature of Genius.

IT will be proper to begin our enquiries, by ascertaining, what it is that properly constitutes Genius as distinguished from our other intellectual powers. This will both render our conception of it precise, and lead us to discover, what other operations of the understanding, attend it in its exertions, or assist it, and in what manner.

S E C T. I.

Of the Province and Criterion of Genius.

THE powers of the human mind, however distinct in themselves, are generally complicated in their energies. Scarce any of them can be exerted in perfection, without the assistance of many others. On this account, it is very difficult to collect the phenomena which belong to each, to distinguish precisely one faculty from the rest, and to ascertain its peculiar nature and province.

The habit of confounding our mental powers with one another, is so strong as to render the closest attention necessary for making a separation; and the natural subtlety of the subject makes it hard to reflect upon it with close attention. But without determining, in this manner, the proper nature of each faculty, and marking its real difference from those which most resemble it and are often combined with it, our conception of it will be imperfect and indeterminate.

THE exertions of Genius can never be complete or regular, when any of the intellectual powers is remarkably defective. It receives assistance from them all. But Genius is notwithstanding *one* of the intellectual powers, and distinguishable from the rest. There are many productions which are far from satisfying reason, or altogether approving themselves to taste, in which we yet acknowledge conspicuous marks of real genius. Their faults discover a defect, not of this, but of some other power. Few competent judges will now-a-days assert that the dialectics of Aristotle, are of any considerable utility for the end which he proposed to answer by them, the discovery of truth: but that work, per-
haps

haps more than any other of his works, displays the compass of his genius. It will be generally allowed that the writings of Shakspeare have almost as great faults as beauties; but it will be as generally asserted, that his genius is so original and immense as to place him at the head of modern poets. What then is the precise criterion of genius? If we can determine what it is, we shall the more easily form a distinct conception of the nature of this faculty.

THE difficulty in determining the province of genius, which arises from the natural intricacy and mutual connexion of the intellectual powers, is increased by the confused application of names, to which that has given occasion. Genius is confounded, not only by the vulgar, but even sometimes by judicious writers, with mere capacity. Nothing however is more evident, than that they are totally distinct. A capacity of learning, is very general among mankind. As birds are by nature made fit for flying, a horse for the course, or a wild beast for fierceness, so docility is congenial to man. A human creature in every respect unteachable, were one of the greatest and rarest of monsters. Most chil-

dren promise some abilities, though the want of culture and other causes often blast them, and frustrate the kind intentions of Nature (a). Mere capacity, in most subjects, implies nothing beyond a little judgment, a tolerable memory, and considerable industry. But true genius is very different, and much less frequent.

GENIUS is properly the faculty of *invention*; by means of which a man is qualified for making new discoveries in science, or for producing original works of art. We may ascribe taste, judgment, or knowlege, to a man who is incapable of invention; but we cannot reckon him a man of genius. In order to determine, how far he merits this character, we must enquire, whether he has discovered any new principle in science, or invented any new art, or carried those arts which are already practised, to a higher degree of perfection, than former masters? Or, whe-

(a) Sicut aves ad volatum, equi ad cursum, ad sævitiam feræ gignuntur: ita nobis propria est mentis agitatio, atque solertia.—Hebetes vero et indociles non magis secundum naturam hominis eduntur, quam prodigiosa corpora, et monstros insignia: sed hi pauci admodum. Fuerit argumentum, quod in pueris elucet spes plurimorum: quæ cum emoritur ætate, manifestum est non naturam defecisse, sed curam. QUINTIL. *Institut. Orat.* lib. i. cap. 1.

ther, at least, he has, in matters of science, improved on the discoveries of his predecessors, and reduced principles formerly known, to a greater degree of simplicity and consistence, or traced them through a train of consequences hitherto unknown? Or, in the arts, designed some new work, different from those of his predecessors, though not perhaps excelling them? Whatever falls short of this, is servile imitation, or a dull effort of plodding industry, which, as not implying invention, can be deemed no proof of genius, whatever capacity, skill, or diligence it may evidence. But if a man shows invention, no intellectual defects which his performance may betray, can forfeit his claim to genius. His invention may be irregular, wild, undisciplined; but still it is regarded as an infallible mark of real natural genius: and the *degree* of this faculty, that we ascribe to him, is always in proportion to our estimate of the novelty, the difficulty, or the dignity of his inventions.

THESE observations, when barely mentioned, are so agreeable to our natural sentiments, that a long illustration of them would be superfluous. They would be amply confirmed

by an examination of the characters of those whom the voice of all ages has pronounced most eminent for genius, and of the particular grounds on which this eminence has been assigned them. But a few examples shall suffice in so clear a case.

ALL the ancients who are most celebrated for genius in the greater kinds of poetry, either invented some new species, or brought a species already invented, to higher perfection; or at least produced compositions distinguished from those of others, by a diversity of subject, or by a peculiar and original manner. Æschylus, Sophocles, and Euripides, not only composed several tragedies, by which they displayed invention, in the contrivance of the fable, in imagining incidents, in forming characters, in conceiving sentiments adapted to them; but each of them made some considerable improvements in the construction of the drama (*b*). The genius of Homer has been

(*b*) Καὶ τό, τε τῶν ὑποκριτῶν πλῆθος ἐξ εἰδὸς εἰς δύο, πρῶτος Ἀισχύλος ἤγαγε, καὶ τὰ τοῦ χοροῦ ἡλάττωσε, καὶ τὸν λόγον πρωταγωνίστην παρεσκεύασε. Τρεῖς δὲ καὶ σῆηνογραφίαν Σοφοκλῆς. ἈΡΙΣΤΟΤ. περὶ ποιητ. κεφ. δ. Καὶ ὁ Εὐριπίδης, εἰ καὶ τὰ ἄλλα μὴ ἔν εἰκονομεῖ, ἀλλὰ τραγικώτατος γε τῶν ποιητῶν φανέται. κεφ. ιγ. Διὸ δὲ λανθάνειν ποιούντας, καὶ μὴ δοκεῖν λέγειν πεπλασμένους, ἀλλὰ πεφυκένους. Τοῦτο γὰρ παθρόν· ἐκεῖ δὲ τοῦτ' αὖτις. Ὡς περ γὰρ πρὸς ἐπιβουλευόντα διαβάλλονται, καθάπερ πρὸς τοὺς αἰνοὺς τοὺς μεμιγμένους. Καὶ εἰς ἡ Θεοδώρου φωνὴ πέποιθε πρὸς τὴν τῶν ἄλλων ὑποκριτῶν. Ἡ μὲν γὰρ τοῦ λέγοντος

always

always held in veneration. His Iliad, his Odyssey, and even his more trivial productions, display so much of rich and original invention in almost every possible way, as would have secured to the author an acknowledgement of very uncommon genius, though he had lived in the most enlightened age, and possessed all advantages for improving his natural talents. But our idea of his invention is immensely raised, when we consider, that he lived in times of ignorance, when poetry remained almost in its first rudeness; that he had no model, by which he could direct his conceptions, or from which he could receive so much as a hint of his grand designs; and that he notwithstanding, merely by the force of his own abilities, brought the noblest species of poetry all at once to its just perfection, and comprehended also in his works, the rudiments of every other species of com-

ἔοικεν εἶναι, αἷδ' ἀλλότριά· κλέπτεται δ' εἴ, εἴαν τις ἐκ τῆς ἐωθύναις δια-
λέκτου ἐκλέγων συντιθῇ ὑπὲρ Ἑυριπίδης ποιῇ καὶ ὑπὲρ αὐτοῦ πρῶτος.
Ῥητορ. β. β. γ. κεφ. β. Tragedias primus in lucem Æschylus
protulit.—Sed longe clarius illustraverunt hoc opus Sophocles
atque Euripides. QUINTIL. Inst. Orat. lib. x. cap. 1.

——personæ pallæque repertor honestæ
Æschylus et modicis instravit pulpita tignis,
Et docuit magnamque loqui, nitique cothurno.

HOR. Ars Poet. ver. 278.

position,

position, the seeds from which, in Aristotle's judgment (*c*), succeeding writers reared both tragedy and comedy, and from which, in the opinion of Quintilian (*d*), even orators might produce all the virtues of their art. On account of original and extensive invention, thus amazingly displayed, his title to the first rank of genius, has been acknowledged by all capable and impartial judges. The *Eneid* is perhaps more correct and faultless than the *Iliad*; but few have pretended that Virgil is the greater poet. He does not show such copious and boundless invention, as his master. Besides, Virgil derives from imitation, many things for which Homer is indebted solely to his own penetration. Were we to compare the *Eneid* with *Paradise Lost*, merely in respect of the genius which they manifest, we might justly prefer Milton to Virgil. For though we know that Milton was perfectly

(*c*) Ὡςπερ δὲ καὶ τὰ σπουδαῖα μάλιστα ποιητῆς Ὅμηρος ἦν (μόνος γὰρ οὐχ ὅτι ἔν, ἀλλ' ὅτι καὶ μιμήσεις δραματικὰς ἐποίησεν) οὕτω καὶ τὰ τῆς κωμῳδίας σχήματα πρῶτος ὑπέδειξεν, οὐ ψόγον, ἀλλὰ τὰ γελοῖον δραματοποιήσας. Ὁ γὰρ Μαργείτης ἀνάλογον ἔχει ὥςπερ Ἰλιάς καὶ Ὀδύσεια πρὸς τὰς τραγῳδίας, οὕτω καὶ οὗτος πρὸς τὰς κωμῳδίας. Περὶ ποιητ. κεφ. δ.

(*d*) Hic (quemadmodum ex oceano dicit ipse amnium vim, fontiumque cursus initium capere) omnibus eloquentiæ partibus exemplum et *orium* dedit. *Instit. Orat.* lib. x. cap. 1.

well

well acquainted both with the Mantuan and with Homer, had the works of both in his eye, and scrupled not to imitate them; yet the nature of his plan, and the peculiarity of many of the incidents and characters in his poem, require greater and more original invention, than there was room for displaying in a subject so similar to Homer's, as that of the Eneid is. It will be generally allowed, that Shakespear is, in point of genius, superior to Milton. The preference arises from the superiority of his invention. In the lower accomplishments of a poet, he is often defective: but the richness of his descriptions, the multiplicity and justness of his characters; the variety, the compass, and the propriety of his sentiments, bear the deepest marks of their being original: and at the same time that the internal excellences of his works display a luxuriance of invention, we know that his education gave him but slender opportunities of being acquainted with those ancient masters, from whom he could have borrowed any of his beauties, or by whose example he could have even improved his natural powers. There were many English rhymers before the time of Chaucer; but he is justly reckoned
the

the father of English poetry, because he first displayed invention in any considerable degree. If it were necessary to multiply examples on this head, we might show that in all the arts, invention has always been regarded as the only criterion of Genius. Even wildness and extravagance of invention, sometimes procures higher praise, than the utmost nicety and correctness. We ascribe so great merit to invention, that on account of it, we allow the artist who excels in it, the privilege of transgressing established rules, and would scarce wish even the redundancies of his natural force and spirit to be lopt off by culture: this, we are afraid, might check the vigour of his invention, which we reckon so capital an excellence, that nothing could make amends for the want of it.

IN science too, as well as in the arts, invention is the proper province of Genius, and its only certain measure. Socrates owes his reputation for genius, to his being the inventor of moral philosophy, and of a peculiar and proper manner of communicating it (*e*). Ari-

(*e*) Σωκράτης, ὁ τὴν ἡθικὴν ἐισαγαγών. ΔΙΟΓ. ΛΑΕΡΤ. προοίμ. Πρῶτος περὶ βίου διελέχθη. βιβ. β. Πρῶτος ἀποδείξας τὸν βίον ἅπαντι χρόνῳ, καὶ μέρει, καὶ πάθεισι, καὶ πράγμασι, ἀπλῶς ἅπασιν φιλοσοφίαν διχομινόν. ΠΛΟΥΤΑΡΧ. ἐκ περισβ. πολυτετε. Socrates mihi vi-

Aristotle is esteemed one of the greatest geniuses of antiquity: it is because he made the most extensive discoveries in philosophy. In physics, in morals, in logic, in criticism, in politics, he has displayed a penetrating and inventive mind, capable of remarking circumstances and investigating general laws, which lay concealed from others (*f*). The greatness

detur, id quod constat inter omnes, *primus* a rebus occultis, et ab ipsa natura involutis, in quibus omnes ante eum philosophi occupati fuerunt, advocasse philosophiam, et ad vitam communem adduxisse. *Cic. Acad. Quæst.* lib. i. A quo hæc omnis, quæ est de vita et moribus, philosophia manavit. *Tusc. Quæst.* lib. iii. Socrates autem *primus* philosophiam devocavit e cælo, et in urbibus collocavit, et in domos etiam introduxit, et coegit de vita, et moribus, rebusque bonis et malis quærere. Cujus multiplex ratio disputandi, rerumque varietas, et *ingenii magnitudo*—plura genera effecit dissentientium philosophorum. *Ibid.* lib. v.

(*f*) Diogenes Laertius introduces an account of his numerous writings, amounting to near four hundred treatises, by remarking that it is proper to enumerate them, *διὰ τὴν περὶ πάντας λόγους τὰνδρός ἀρετὴν*, and concludes his catalogue with observing the extensive invention which they evidence, *τοῖς γὰρ ὅλοις φιλοπονώτατος ἐγένετο καὶ ἑυπετικώτατος*. βιβ. ι. Abundantia quadam ingenii præstabat, ut mihi videtur, Aristoteles.—Quo profecto nihil est acutius, nihil politius. *Cic. Acad. Quæst.* lib. i. Aristoteles, vir summo ingenio, scientia, copia.—Aristoteles longe omnibus (Platonem semper excipio) præstans et ingenio et diligentia. *Tusc. Quæst.* lib. i.—Peripatetici veteres, quorum princeps Aristoteles, quem, excepto Platone, haud scio an recte dixerim principem philosophorum.—Natura sic ab iis investigata est, ut nulla pars cælo, mari, terra prætermissa sit. Quinetiam cum de rerum initiis, omnique mundo locuti essent, ut multa, non modo probabili argumentatione, sed etiam necessaria mathematicorum ratione concluderent; maximam materiam ex rebus per se investigatis, ad rerum occultarum cognitionem attulerunt. Persecutus est

of Bacon's genius will ever be admired. It is the immensity of his discoveries, that leads us to form so exalted an idea of it. In contradiction to the spirit of the philosophy in which he had been educated, without assistance from those who had gone before him, he was able to discover, what sciences had been hitherto neglected, and what they should contain; to add them to the sciences already cultivated; to convert philosophy from an art of disputation, into an instrument of subjecting the works of nature to the dominion of man, and of producing useful arts; to establish rules, formerly unknown, by which genuine and inductive philosophy might be cultivated, and raised to perfection; and to make considerable progress in applying these rules to the actual production of that stupen-

Aristoteles animantium omnium ortus, victus, figuras.—Differendique ab iisdem, non dialectice solum, sed etiam oratorie præcepta sunt tradita; ab Aristoteleque principe de singulis rebus in utramque partem dicendi exercitatio est instituta.—Omnium fere civitatum non Græciæ solum, sed etiam barbariæ, ab Aristotele, mores, instituta, disciplinas—cognovimus. *De Fin.* lib. v. Sed quis omnium doctior, quis acutior, quis in rebus vel inveniendis, vel judicandis acrior Aristotele fuit? *Orat.* Quæ tandem ars digna literis Platoni defuit? Quot sæculis Aristoteles didicit, ut non solum quæ ad philosophos atque oratores pertinent, scientia complecteretur, sed animalium satorumque naturas omnes perquireret? Illis enim hæc *invenienda* fuerunt, nobis *cognoscenda* sunt. *QUINT. Inst. Orat.* lib. xii. cap. 11.

dous

dous edifice of knowledge, of which his comprehensive mind had formed the plan:

IN every art and science, then, the praise of genius is bestowed on invention, and is proportioned to the degree of it. In general, the first rank is assigned to those who have invented, when there was no example or model of which they could avail themselves, when their predecessors had made no preparation for their discoveries, nor given any hint which could suggest them; and who have, notwithstanding these disadvantages, brought their designs to a considerable degree of perfection. It is on this account, that Homer stands without a rival in the poetic world.

THEY who prosecute the hints, or improve the discoveries of those who have gone before them, are ordinarily entitled only to the second rank. It sometimes happens, however, that an improvement or addition is so considerable, as to evidence invention equal to what was displayed in the first essay. In that case, we find the genius of the improver rated as high as the person's who gave the hint. Alcibiades, Hyperides, and above all Demosthenes, who brought eloquence to perfection, are celebrated for genius, at least as much as

Lyfias, Ifocrates, and Ifæus, who are confidered as the inventors of fo many peculiar files (*f*). Before the time of Archimedes, geometry had been carried to a very confiderable degree of perfection; but he made fo many and fo great improvements in it, that he is placed at the head of the ancient geometicians (*g*). All the discoveries of Newton, except thofe which belong to pure mathematics, are but a few members of that body of philofophy, the outlines of which Bacon had conceived entire. Newton has exhibited them perfect and accurately finifhed; but he had the directions and example of Bacon, who, without any affiftance, fketched out the whole defign. It would neverthelefs be a queftion of very difficult folution, which of the two poffeffed the greateft genius? New-

(*f*) Περὶ Διωνάρχου τοῦ ἑήτορος οὐδὲν ἐπικρῶς ἐν τοῖς περὶ τῶν ἀρχαίων γραφεῖσιν, διὰ τὸ μὴτε ἘΥΡΕΤΗ'Ν ἰδίου γεγονέναι χαρακτῆρος τὸν ἀνδρα, ὥσπερ τὸν Λυσίαν, καὶ τὸν Ἰσοκράτην, καὶ τὸν Ἰσαῖον· μὴτε τῶν ἐκρημένων ἑτέροις ΤΕΛΕΙΩΤΗ'Ν, ὥσπερ τὸν Δημοσθένην, καὶ τὸν Ἀισχύνην, καὶ Ὑπερείδην ἡμεῖς κρινόμεν. ΔΙΟΝΥΣ. ΑΛΙΚΑΡ. Διωνάρχος.

(*g*) Il y fit un si grand nombre de découvertes, que l'antiquité lui a décerné d'un commun accord la première place parmi les géomètres. Les méthodes imaginées par Archimede sont aussi reconnues pour les premiers germes, et des germes assez développés de celles qui ont porté si haut la Géométrie dans ces derniers tems. Wallis, bon juge en ses matieres, temoigne son admiration pour ce grand homme, par ces mots, *vir stupendæ sagacitatis, qui prima fundamenta posuit inventionum fere omnium, de quibus promovendis ætas nostra gloriatur.* Hist. des Math. par MONTUCLA. . Part I. liv. iv. § 5.

ton's enquiries concerning bodies the most subtle or the most remote, seem to demand an acuteness and compass of invention, which we might pronounce adequate to all the investigations of Bacon, though his discoveries in mathematics, perfectly original, were not extant, to give a sanction to the judgment.

NAY, it is observable that, if the first trial was left very imperfect, it may discover less invention, than is exerted afterwards in perfecting the art; and that, in this case, he who perfects the art is acknowledged to possess admirable genius, while the first attempts are disregarded, and the very names of those who made them, totally forgotten. They who made the first essays in painting, only circumscribed their figures with a single line: their works and themselves were soon buried in oblivion. Their immediate successors in the art, added but a few other lines by way of shading; Cleophrantus first daubed the figures with a single colour, laid on every where alike: but neither have these acquired fame (*b*).

(*b*) Alii apud Sicyonem, alii apud Corinthios repertam [affirmant picturam] umbra hominis lineis circumducta; itaque talem primam fuisse: secundam singulis coloribus, et monochromaton dictam, postquam operosior inventa erat: duratque talis etiam nunc. Inventam linearem dicunt a Phi-

By such trifling inventions, though original, they did not manifest a degree of genius, which any advantages could have rendered sufficient for the discoveries that were afterwards made. Cimon is said to have invented the varying of the attitudes, and to have greatly improved the art of giving relief to the figures; and Paneus to have been the first who painted history (*i*). Polygnotus introduced expression into the countenances of his figures, and made considerable improvements in the drapery (*k*). These were important

locle Ægyptio, vel Cleanthe Corinthio. Primi exercuere Ar-
dices Corinthius et Telephantes Sicyonius, sine ullo etiam-
num colore, jam tamen spargentes lineas intus. Ideo et quos
pingerent ascribere institutum. Primus invenit eas colorare,
testa (ut ferunt) trita, Cleophrantus Corinthius. *PLIN. Nat.*
Hist. lib. xxxv. cap. 3. Other authors give the same account of
the rudeness of the first attempts in painting. "Ὅτε ὑπῆρχετο ἡ
γραφικὴ τέχνη, καὶ ἦν τρέπον τιμὰ ἐν γάλαξιν; καὶ ἐν σπαργάνοις, ὅ-
πως ἄρα ἀτέχνως εἰκαζον τὰ ζῶα, ὥστε ἐπιγράφειν αὐτοῖς τοὺς γραφείας,
τοῦτο βούς, ἐκεῖνο ἵππος, τοῦτο δένδρον. ΑἰΔΙΑΝ. ποικ. ἱστορ. βιβ. ι.
κεφ. ι.

(*i*) Eumarum Atheniensem figuras omnes imitari ausum:
quique inventa ejus excoluerit, Cimonem Cleoneum. Hic
cataglyphæ invenit; hoc est obliquas imagines, et variæ for-
mare vultus, respicientes, suspicientes, et despicientes: arti-
culis etiam membra distinxit, venas protulit, præterque in
veste rugas et sinus invenit. Paneus quidem frater Phidias
etiam prælium Atheniensium adversus Persas, apud Maratho-
nem factum pinxit. *PLIN. ib. cap. 8.*

(*k*) Polygnotus Thasius, qui primus mulieres lucida veste
pinxit, capita earum miris varicoloribus operuit, plurimumque
picturæ primus contulit: siquidem instituit os adaperire, den-
tes ostendere, vultum ab antiquo rigore variare. *PLIN. ib.*
cap. 9.

inventions,

inventions, and are acknowledged to be proofs of genius in the authors of them; yet, because they carried not these improvements to a great degree of perfection, their genius has scarce been so highly celebrated by most judges as that of several who succeeded them (*l*), and practised the art in so masterly a way as to satisfy taste, and excite admiration (*m*). Such were Zeuxis, who discovered the proper disposition of light and shade, and rose above his contemporaries in all the excellencies of painting which had been till then attempted (*n*); Parrhasius, who first introduced exactness of proportion, liveliness of expression, and elegance in the outlines (*o*);

(*l*) Omnes hi jam illustres: non tamen in quibus hæere expositio debeat, festinans ad lumina artis: in quibus primus refulsit Apollodorus Atheniensis. Hic primus species exprimere instituit, primusque gloriam penicillo jure contulit. Neque ante eum tabula ullius ostenditur, quæ teneat oculos. *Id.*

(*m*) Zeuxis, Aglaaphon, Apelles; neque eorum quisquam est, cui quidquam in arte sua deesse videatur. *Cic. de Orat.* lib. iii.

(*n*) Zeuxim, qui tum longe cæteris excellere pictoribus existimabatur. *Cic. de Invent.* lib. ii. Audentem jam aliquid penicillum ad magnam gloriam perduxit.—Artem ipsi ablatam Zeuxin ferre secum. *PLIN.* ib.

(*o*) Primi, quorum quidem opera non vetustatis modo gratia visenda sunt, clari pictores fuisse dicuntur Polygnotus atque Aglaophon, quorum simplex color tam sui studiosos adhuc habet, ut illa prope rudia, ac velut futuræ mox artis

Timanthes, who was distinguished by the art of making his pictures to suggest more than the pencil could express (*p*). Such were still more eminently the next race of painters, who perfected the art (*q*); Apelles, who stands unrivalled in the gracefulness and finished beauty of his works (*r*); Protogenes,

primordia, maximis qui post eos extiterunt authoribus præferantur, *proprio quodam intelligendi* (ut mea fert opinio) *ambitu*. Post Zeuxis atque Parrhasius non multum ætate distantes—plurimum arti addiderunt. Quorum prior luminum umbrarumque invenisse rationem, secundus examinasse subtilius lineas traditur.—Ita circumscripsit omnia, ut eum legumlatorem vocent. *QUINT. Inst. Orat.* lib. xii. cap. 10. Parrhasius—et ipse multa constituit. Primus et symmetriam picturæ dedit, primus argutias vultus, et elegantiam capilli, et venustatem oris, confessione artificum in lineis extremis palmam adeptus. *PLIN. ib.* cap. 10.

(*p*) Timanthi vel plurimi affuit ingenii. Ejus enim est Iphigenia oratorum laudibus celebrata, &c. Et in omnibus ejus operibus intelligitur plus semper quam pingitur, et cum ars summa sit, ingenium tamen ultra artem est. *PLIN. ib.* Operienda sunt quædam, sive ostendi non debent, sive exprimi pro dignitate non possunt, ut fecit Timanthes, &c. *QUINT. Inst. Orat.* lib. ii. cap. 14.

(*q*) Similis in pictura ratio est, in qua Zeuxim, et Polygnotum, et Timanthem, et eorum qui non sunt usi plus quam quatuor coloribus, formas et lineamenta laudamus. At in Aëtione, Nicomacho, Protogene, Apelle, jam perfecta sunt omnia. *CIC. Brut.*

(*r*) Verum et omnes prius genitos futurosque postea superavit Apelles.—Præcipua ejus in arte venustas fuit, &c. *PLIN. ib.* Ingenio et gratia, quam ipse in se maxime jactat, Apelles est præstantissimus. *QUINT. Inst. Orat.* lib. xii. cap. 10. Nemo pictor—inventus qui Veneris eam partem, quam Apelles inchoatam reliquisset absolveret, oris enim pulchritudo reliqui corporis imitandi spem auferebat. *CIC. 2^a Off.* lib. iii. *PLIN. ib.*

whose

whose only blemish was too much labour (*s*); Amphion and Asclepiodorus, the former of whom Apelles preferred to himself, for regular distribution, and the latter for correctness of proportion (*t*); Aristides, who was perfect in expressing the passions and affections of the soul (*u*); Nicias, who is celebrated for his skilful distribution of light and shade, and the relief of his pictures (*v*). Quintilian seems indeed to give the preference, in point of genius, to the painters who immediately preceded Zeuxis; but it is because, in his judgment, they displayed most invention (*x*). The same observation which is thus exemplified

(*s*) Πρωτογένης ὁ ζωγράφος τὸν Ἰαλυσὸν φασιν, ἑπτὰ ἔτεσι διατελῶν γραφῶν ἐξετέλεσεν. Ὃν Ἀπελλῆς ἰδὼν, τὸ μὲν πρῶτον ἔστη ἄφωνος, ἐκπλαττεῖς ἐπὶ τῇ παραδόξῳ διαφ. Ἔπειτα ἀπιδὼν ἔφω, καὶ ὁ πόντος μέγας, καὶ ὁ τεχνίτης, ἀπολείπεται γε μὴν τῆς χειρουργίας ἢ χάρις, ἥς ὁ ἀνὴρ εἰ τύχοι, ὁ πόντος αὐτοῦ τοῦ οὐρανοῦ ψεύσει. Αἰαίαν. ποικ. ἱστορ. βιβ. ιβ. κεφ. μζ. Et aliam gloriam usurpavit [Apelles,] cum Protogenis opus immensi laboris ac curæ supra modum anxie miraretur. Dixit enim omnia sibi cum illo paria esse, aut illi meliora; sed uno se præstare, quod manum ille de tabula nesciret tollere. PLIN. ib. Cura, Protogenes—præstantissimus. QUINT. ib.

(*t*) Nec debebat Amphioni de dispositione, nec Asclepiodoro de mensuris. PLIN. ib. Eadem ætate Asclepiodorus fuit, quem in symmetria mirabatur Apelles. Ib.

(*u*) Æqualis ejus fuit Aristides Thebanus. Is omnium primus animum pinxit, et sensus omnes expressit. PLIN. ib.

(*v*) Diligentissime mulieres pinxit. Lumen et umbras custodivit, atque ut eminerent e tabulis picturæ, maxime curavit, &c. PLIN. ib. cap. 11.

(*x*) See Note (*o*), above.

in the beginnings of painting, might be confirmed from the fate of the first practitioners in every art. Both the works and the genius of the first sculptors, were despised in after-ages, while Polycletus, Phidias, Euphranor, and others, who, improving on their essays, rose to excellence, were held in veneration (y). Scarce one of the poets who preceded Homer, is mentioned by ancient authors (z). No work of any tragedian older than Æschylus, has been thought worth preserving; and though the name of Thespis is not forgotten, he is mentioned rather with contempt for the

(y) Quis enim eorum, qui hæc minora animadvertunt, non intelligit, Canachi signa rigidiora esse, quam ut imitentur veritatem? Calamidis dura illa quidem, sed tamen molliora quam Canachi. Nondum Myronis satis ad veritatem adducta, jam tamen quæ non dubites pulchra dicere. Pulchriora etiam Polycleti, et jam plane perfecta, ut mihi quidem videre solent. Cic. *Brut.*—Phidiæ simulacris, quibus nihil in illo genere perfectius videmus. *Orat.* Nam duriora et Tuscanicis proxima Calon atque Egeſias, jam minus rigida Calamis, molliora adhuc supra dictis Myron fecit. Diligentia et decor in Polycleto super cæteros.—At quæ Polycleto defuerunt, Phidiæ atque Alcameni dantur. Phidias tamen diis quam hominibus efficiendis melior artifex traditur: in ebore vero longe citra æmulum. QUINT. *Inst. Orat.* lib. xii. cap. 10. Euphranorem admirandum facit, quod et cæteris optimus studiis inter præcipuos, et pingendi fingendique idem mirus artifex fuit. *Ibid.* See also PLIN. *Nat. Hist.* lib. xxxiv. cap. 8. lib. xxxv. cap. 11.

(z) Nec dubitari debet, quin fuerint ante Homerum poetæ, quod ex eis carminibus intelligi potest, quæ apud illum, et in Phæacum, et in procorum epulis canuntur. Cic. *Brut.*

rudeness of his essays, than with esteem, as the inventor of the drama (*a*).

IT is acknowledged that the Greeks received the beginnings of their knowledge in philosophy and mathematics, from the Egyptians; but there is reason to suspect, that among the Egyptians, these sciences were in a very imperfect state: it is certain that the earliest Greek philosophers learned, in Egypt, only the first elements of mathematics. In Greece, the sciences made rapid progress, and reached a very high degree of improvement. If the Egyptians were the inventors, this proves them to be ingenious; but the Greeks shewed themselves to possess superiour genius, and are acknowledged to have possessed it, for greater invention was necessary for the perfection to which they rose. Arts and sciences have been known to the Chinese for many ages, held in the highest veneration, and studied with great ardor; yet they have not gone beyond the elements of most of them. This is an evidence that real genius is not frequent among them. They are defective in

(*a*) Ignotum tragicæ genus invenisse Camenæ
Dicitur, et plaustris vexisse poemata Thespis,
Qui canerent agerentque, peruncti facibus ora.

HOR. *Ars Poet.* ver. 275.

invention;

invention ; they have some lucky ideas, but they are incapable of pursuing them.

IT is worth while to remark, that sometimes we are necessarily liable to error in comparing the genius of different authors, from the impossibility of our ascertaining, in many cases, the degree of invention which truly belongs to them. At one time we may reckon that original, which is only imitation, or even a servile copy ; at another, what we brand with these epithets of reproach, may be really invention. This circumstance is often of peculiar disadvantage to modern authors ; and it leads us, perhaps, to ascribe greater genius to the ancients, than they are entitled to. The former are accused of borrowing from their predecessors, many principles, sentiments, or images, for which they are indebted solely to their own genius. In the latter, every thing is reckoned original, because we know not, who had occupied it before. We can form no objection against the oldest authors extant, for the works of those who wrote before them, are long since lost. Aristotle had not, even in his time, the means of discovering, in every particular, how far Homer owed the perfections of his

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works,

works, to the lessons of others, and how far to the excellence of his own genius (b).

S E C T. II.

To what Faculty of the Mind, Genius properly belongs.

SINCE invention is the infallible criterion of Genius, we cannot better investigate the nature of Genius, than by enquiring, what power of the mind it is, that qualifies a man for invention? Invention is the capacity of producing new beauties in works of art, and new truths in matters of science; which can be accomplished only by assembling ideas in various positions and arrangements, that we may obtain uncommon views of them. Our intellectual powers, so far as it is necessary to consider them at present, may be reduced to four; Sense, Memory, Imagination, and Judgment. By recollecting the proper offices of these, we shall be able to determine, from which of them Genius derives its origin.

(b) Speaking of the entire unity of Homer's fables, he leaves it undetermined, whether he was directed in this by instruction, or by his own natural parts: ἥτοι διὰ τέχνην, ἢ διὰ φύσιν. Περιποιεῖται, κεφ. η.

SENSE only perceives those objects which are really existent, and actually exhibited to the mind. It can, therefore, lead us to no discovery beyond the objects that happen, in the course of nature, to occur to it. It cannot carry us a step farther than the real things which present themselves to its notice at any one individual moment. Its sphere is thus by much too narrow, to render it the parent of invention (c).

MEMORY is confined to a review of those objects which have once been present to sense. It gives a sort of duration to the perceptions which sense has conveyed, but it can create no new perceptions. Like a mirror, it reflects faithful images of the objects formerly perceived by us, but can exhibit no form with which it is not in this manner supplied. It is in its nature a mere copier; it preserves scrupulously the very position and arrangement of the original sensations, and gives us along with this, a perception of their having been at some past time present to the

(c) It is obvious that we here use the word *sense* in an extensive meaning, so as to include not only the external senses, but also that internal sense or consciousness, by which we attend to the operations of our own minds.

mind (*d*). It is thus precisely the reverse of invention.

IMAGINATION is much less confined in its operations. Even when it exerts itself in the simplest manner, when it seems only to present ideas unattended with remembrance, it in some degree displays its creative power. It does not, like memory, professedly copy its ideas from preceding perceptions of sense, nor refer them to any prior archetypes. It exhibits them as independent existences produced by itself. It may be questioned, whether, in some very peculiar cases, its power extends not even to the formation of a simple idea (*e*). But it is certain that, when it only exhibits simple ideas which have been derived from the senses, it confers something original upon them, by the manner in which it exhibits them. Light and heat are ideas

(*d*) "Ουτε γάρ τὸ μέλλον ἐνδέχεται μνημονεύειν, ἀλλ' ἔστι δοξαζόν καὶ ἑλπίζον—οὔτε τοῦ παρόντος, ἀλλ' αἰσθησίς. Ταύτη γάρ οὔτε τὸ μέλλον, οὔτε τὸ γινόμενον γνωρίζομεν, ἀλλὰ τὸ παρὸν μόνον. Ἡ δὲ μνημὴ, τοῦ γινόμενου. Τὸ δὲ παρὸν ὅτε πάρεστιν, οἶον τοδὶ τὸ λευκὸν ὅτε ὄρεα, οὐδὲς ἂν Φαίη μνημονεύειν, οὐδὲ τὸ θεωρούμενον, θεωρῶν καὶ νοῶν, ἀλλὰ τὸ μὲν αἰσθάνεσθαι φησι, τὸ διπίσασθαι μόνον. Ὅταν δὲ αὐτοῦ τῶν ἐνεργειῶν σχῆ τὴν ἐπιτήμην καὶ τὴν αἰσθησιν, οὕτω μέμνηται τὰς τοῦ τριγώνου, ὅτι δύο ὀρθὰς ἴσαι· τὸ μὲν, ὅτι ἔμαθεν ἢ ἐθεώρησε, τὸ δὲ, ὅτι ἤκουσεν, ἢ ὅτι εἶδεν, ἢ, τι τοιοῦτον· δεῖ γάρ ὕταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἐν τῇ ψυχῇ λέγει, ὅτι πρότερον τοῦτο ἤκουσεν, ἢ ἤσθετο, ἢ ἐνόησεν. ΑΡΙΣΤΟΤ. περὶ μνήμης.

(*e*) Treatise on Hum. Nat.

which

which memory retains exactly at all times, and whenever we please, we can recollect our having formerly perceived them by our senses. But imagination can present these ideas, not as copies, but as originals. We often form them in a cold day, or in a dark night, without reflecting on our having perceived them before; and consider them only as objects which would be agreeable at present, or which we may hereafter experience.

IMAGINATION is still more inventive in all its other operations. It can lead us from a perception that is present, to the view of many more, and carry us through extensive, distant, and untrodden fields of thought. It can dart in an instant, from earth to heaven, and from heaven to earth; it can run with the greatest ease and celerity, through the whole compass of nature, and even beyond its utmost limits. It can transpose, vary, and compound our perceptions into an endless variety of forms, so as to produce numberless combinations that are wholly new (*f*). Even

(*f*) Quæ est enim forma tam inusitata, tam nulla, quam non sibi ipse animus possit effingere? ut, quæ numquam viderimus, ea tamen formata habeamus, oppidorum situs, hominum figuras.—Nihil est enim, de quo cogitare nequeamus. Cic. *de divinât.* lib. ii.

in sleep, when the senses are locked up, and when the exercise of memory is totally suspended, imagination eminently displays its inventive force; which is then so great, that “the flow of speech make unpremeditated harangues, or converse readily in languages that they are but little acquainted with; the grave abound in pleasantries, the dull in repartees and points of wit. There is not a more painful action of the mind, than invention; yet in dreams it works with that ease and activity that we are not sensible when the faculty is employed, and we read without stop or hesitation, letters, books, or papers, which are merely the instantaneous suggestions of our own imaginations (*g*).”

To the imagination, invention is accordingly referred, even by the generality of mankind. If a poet or an orator only repeat the sentiments of others, or be unable to illustrate his subject with proper images, in-

(*g*) See SPECTATOR, No. 487. Animorum est ea vis, atque natura, ut vigeant vigilantes, nullo adventitio pulsu, sed suo motu, incredibili quadam celeritate. Hi cum sustinentur membris, et corpore, et sensibus, omnia certiora cernunt, cogitant, sentiunt. Cum autem hæc subtrahuntur, desertusque animus languore corporis, tum agitur ipse per sese. Itaque in eo et formæ versantur, et actiones; et multa audiri, multa dici videntur. Cic. *de divinatio*, lib. ii.

cidents, characters, or observations, every person imputes this defect of invention, to the barrenness of his *fancy*. All genuine productions in the arts, are marked with strong signatures of a bright and lively imagination: and every original work in science, will be found, on examination, to proclaim a force and vigour of the same power, though the traces of it may not be so obvious at first view. Imagination is, therefore, a source of invention. Whether it be the only source, will appear immediately.

JUDGMENT, in which we comprehend *reason*, from the comparison of ideas and sensations, discovers relations which are not the objects of sense. But many subjects admit of the most copious invention, where the things invented are not relations. Whatever influence, therefore, judgment may have in some kinds of invention, and however necessary for perfecting the operations of Genius in every kind, its assistance may be, it cannot be reckoned properly the inventive power, as there are many objects of invention, to which it has not an immediate respect. Besides, even in science, where relations are what we want to discover, judgment cannot search out or
bring

bring into view, the perceptions that are to be compared. They must be suggested by some other power, as we have occasion for them; and till they are suggested, judgment has nothing about which it may employ itself; it must remain inactive, and can make no comparison or deduction. Its sole business is, to observe the relations of those perceptions with which it is supplied by sense, memory, or imagination, and to produce conviction by its exertion.

Of all the kinds of judgment, *reason* has most the appearance of an inventive power, as it not only perceives the connexion of the several parts of a proof, but also infers the conclusion from all the parts together. Mr. Locke analyses reason into two powers, Sagacity, and Illation; and ascribes to it four different exercises. “ The first and highest
“ degree of reason, says he, is the discover-
“ ing and finding out of proofs; the second,
“ the regular and methodical disposition of
“ them, and laying them in a clear and fit
“ order, to make their connexion and force
“ be plainly and easily perceived; the third
“ is, the perceiving their connexion; and
“ the fourth, a making a right conclu-
D “ sion.”

“ sion (b).” He might have justly given this as an enumeration of all the steps which the *mind* takes in the discovery of new conclusions: But they are not all to be ascribed to *reason*. The first of them, the finding out of ideas or experiments which may serve for proofs, is the province, not of reason, but of imagination. It is imagination likewise, that can be most properly said to order and dispose the proofs. It arranges them in a certain disposition; then reason surveys them, and examines, whether this disposition is such as can enable it to perceive their connexion. If it does not, reason rejects that disposition; and imagination is again set a working, arranges them in a different manner, and continues to vary the disposition, till it either suggests one which reason finds sufficient for its purpose, or till, after having wandered through all the arrangements of its materials that occur to it, it is wearied with the repetition of unsuccessful attempts, and gives over the work as desperate and impracticable. The disposition, therefore, of the proofs must be ascribed to imagination, though reason always

(b) Essay concerning Human Understanding. B. iv. c. 17.
§ 2, 3.

follows in its foot-steps, keeps pace with it, and recalls it when it has made an useless excursion. It follows, that the two last operations which Locke assigns to reason, are the only ones which properly and strictly belong to it. Its business is, to perceive the connexion or force of the proofs, after they are discovered and arranged; and from the whole train of them to infer a just conclusion. This is performed by every man who learns a science from the writings or instructions of others. It must be performed before a person can comprehend a demonstration in Euclid, or the proof of any conclusion in philosophy. It implies, not genius, but mere capacity; and is daily accomplished by multitudes who are not able to make any original discovery in the sciences. Indeed, without this, no invention in science can be *completed*; but without an imagination capable of finding out and ordering the proofs, no invention could be even *begun*. The chief difficulty in inventing new truths, regards that part which is the work of imagination, the discovering of fit intermediate ideas, or apposite experiments, and the disposing of them in such a manner that they may lead to just

and important conclusions. It is this that requires genius, and is regarded as its proper province. The rest demands, not invention, but the same abilities which are necessary for apprehending the discoveries of other men. A person may be able to perceive, with the greatest ease and certainty, the connexion and force of proofs which are presented to him in due order, who could not have contrived or arranged these proofs. He may possess reason in perfection, and yet be totally destitute of invention, originality, and genius (i).

FROM these observations, it would appear, that genius of every kind derives its immediate origin from the imagination. Mere imagination, it is true, will not constitute genius. If fancy were left entirely to itself, it would run into wild caprice and extravagance, unworthy to be called invention. A

(i) In this enumeration, we have not mentioned *taste*, a faculty which confessedly has great influence on genius. The reasons will readily occur. It influences only some kinds of genius, not all the kinds; but we have here confined ourselves to the consideration of genius in general. Taste is not a simple, but a derived faculty. In respect of its principles, it is a compound of judgment and internal sense; (*Essay on Taste*, part II. sect. 2.) and its effects on genius resemble, sometimes those of the one of these powers, and sometimes those of the other.

man who throws out indigested notions, contradictory positions, trite and vulgar sentiments, or foolish whimsies, is not said to have invented them, but is rather blamed for not having avoided them. As fancy has an indirect dependence both on sense and memory, from which it receives the first elements of all its conceptions, so when it exerts itself in the way of genius, it has an immediate connexion with judgment, which must constantly attend it, and correct and regulate its suggestions. This connexion is so intimate, that a man can scarce be said to have invented till he has exercised his judgment (*k*). But still it is true that imagination invents, and judgment only scrutinizes and determines concerning what it has invented. It is imagination that produces genius; the other intellectual faculties lend their assistance to rear the offspring of imagination to maturity. It is also true, that in matters of speculation, imagination resigns its discoveries into the hands of reason, sooner than in the arts, and leaves it more to finish. Yet it always sup-

(*k*) Ego porro ne invenisse quidem credo eum, qui non judicavit: nec enim contraria, communia, stulta invenisse dicitur quisquam, sed non vitasse. *QUINT. Inst. Orat.* lib. iii. cap. 3.

plies the subject on which reason is to work. Without judgment, imagination would be extravagant; but without imagination, judgment could do nothing. A bright and vigorous imagination joined with a very moderate judgment, will produce genius, incorrect, it may be, but fertile and extensive: but the nicest judgment unattended with a good imagination, cannot bestow a single spark of genius. It will form good sense, it will enable a man to perceive every defect and error in the discoveries of others; but it cannot qualify him for supplying these defects, or for being himself the author of any new invention. A man of mere judgment, is essentially different from a man of genius. The former can employ his reason only on subjects that are provided by others; but the latter can provide subjects for himself. This ability is owing solely to his possessing a comprehensive imagination, which the former wants.

IT is the imagination, therefore, with its operations and laws, that we must especially examine, in order to explain the nature of Genius. The other faculties which assist it, particularly judgment, which is more inti-

mately

mately connected with it than any of the rest, will need to be considered, but are to be regarded only in a secondary view.

S E C T. III.

How Genius arises from the Imagination.

WHEN memory presents ideas, it annexes to them a conviction that the ideas themselves, or the objects from which they are copied, were formerly perceived; and it exhibits the ideas in the same form and order in which the things themselves appeared. In time remembrance fails, ideas are perceived without being referred to any prior sensations of their originals, the order of the parts is forgotten. But even then, ideas do not lie in the mind without any connexion or dependence. Imagination can connect them by new relations. It knits them together by other ties than what connected the real things from which they are derived; and often bestows an union upon ideas whose archetypes had no relation. In this operation, it is far from being capricious or irregular, but for the most part observes general and established

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rules.

rules. There are certain qualities which either really belong, or at least are supposed to belong to all the ideas that are associated by the imagination. These qualities must be considered as, by the constitution of our nature, rendering ideas fit to be associated. It is impossible to give a reason, why these qualities unite ideas: it is not necessary at present to explain particularly what they are. Experience informs us, that the influence of association is very great. By means of it, multitudes of ideas originally distinct and unconnected, rise always in company, so that one of them cannot make its appearance, without introducing all the rest. On this account, human thought is perfectly restless. It requires no labour to run from one idea to others. We have so great a propensity to do it, that no resolution has force enough to restrain us from it, nor will the strongest efforts be able to confine us long to the contemplation of a single idea. We are incessantly looking round to every side, without intending it; we employ ourselves about many objects, almost at the same instant (*l*). Nay,

(*l*) *Natura humani ingenii ita est agilis et velox, sic in omnem partem, ut ita dixerim, spectat, ut ne possit quidem aliquid agere, tantum unum, in plura vero, non eodem die*

association is often so strong, that it bestows a sort of cohesion on several separate ideas, and makes them start up in numberless combinations, many of them different from every form which the senses have perceived; and thus produces a new creation. In this operation of the imagination, its associating power, we shall, on a careful examination, discover the origin of genius.

ASSOCIATION being an operation of fancy, common to all men, some of its effects are universal. In every individual, it displays itself in many instances. Not to mention such cases as are totally unconnected with our present subject, scarce any person is so stupid, as not to have sometime in his life, produced a bright flash of imagination, though surrounded, it may be, with a wide extent of darkness. But such transient blazes do not necessarily imply real genius. It is something more permanent and uniform. It requires a peculiar vigour of association. In order to produce it, the imagination must be comprehensive, regular, and active.

modo, sed eodem temporis momento vim suam impendat.
QUINT. *Instit. Orat.* lib. i. cap. 20.

GENIUS implies such *comprehensiveness* of imagination as enables a man, on every occasion, to call in the conceptions that are necessary for executing the designs or compleating the works in which he engages. This takes place, when the associating principles are strong, and fit for acting in an extensive sphere. If they be weak, they will call in memory to their aid. Unable to guide our steps in an unknown country, they keep in the roads to which we have been accustomed; and are directed in suggesting ideas, by the connexions which we remember. Every production of a man who labours under this debility of mind, bears evident marks of barrenness, a quality more opposite to true genius than any other. Nothing appears in it uncommon or new; every thing is trite and unoriginal. Or, if he attempts to quit the beaten path, and start new game, he can find out but a few ideas, he is exhausted by a short excursion, and must either make a stop, or return to the tracks of memory. Industry endeavouring, in this manner, to supply the want of a copious imagination, by accurate remembrance or diligent observation, will produce, instead of a philosopher, a devoted follower,

follower, or a dull laborious commentator; instead of a poet, a servile imitator, or a painful translator. But when the associating principles are vigorous, imagination, conscious as it were of its own strength, sallies forth, without needing support or asking assistance, into regions hitherto unexplored, and penetrates into their remotest corners, unfatigued with the length of the way. In a man of genius, the power of association is so great, that when any idea is present to his mind, it immediately leads him to the conception of those that are connected with it. No sooner almost is a design formed, or the hint of a subject started, than all the ideas which are requisite for completing it, rush into his view as if they were conjured up by the force of magic. His daring imagination traverses all nature, and collects materials fit for his purpose, from all the most distant corners of the universe; and presents them at the very instant when they become useful or necessary. In consequence of this, he takes in a comprehensive view of every subject to which his genius is adapted.

THUS, when the associating principles are strong and have an extensive influence, they
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naturally form, in proportion to the degree of their strength, that boundless fertility, that inexhaustible copiousness of invention, which is not only one necessary ingredient in true genius, but the first and most essential constituent of it. The smallest production will in some measure discover, in what extent this power is possessed. A work of real genius always proclaims, in the clearest manner, that immense quantities of materials have been collected by fancy, and subjected to the author's choice. There is no particular, perhaps, in the works of Homer, that has been more universally remarked and admired, than the prodigious compass of imagination, which they show. His penetration has gained him access to all the magazines of ideas, and enabled him to draw materials from every part of nature, and from the whole circle of human arts. Knowledge of them was prerequisite, but could have been of no service after it was obtained, without the liveliest fancy, suggesting them readily, and applying them on suitable occasions. A comprehensive imagination gave Newton so great command over the natural and the intellectual world, that, in his philosophical enquiries, he misses

no experiment which is necessary for promoting his investigation, and, in his mathematical researches, discovers every idea which can be a proper medium for inferring his conclusion, and includes in his problems almost every case that can occur.

THIS extensive compass of thought enables a man to derive from his own treasure, what they who want it, are indebted for to the works of others. He who possesseth a fertile imagination, is under no necessity of arrogating to himself the discoveries of others, or of adorning his own productions with the beauties which he has pilfered from them. He will not decline to use, on proper occasions, the inventions of his predecessors, either in science or in the arts; but in using them, he will display his own genius. He will at least preserve the full spirit of the original, not contented with merely transmitting its form: the propriety with which the imitation or the theory is introduced, and the force, with which it is applied, will show that it was not merely copied from memory, but appositely suggested by a vigorous imagination: and frequently he will give farther proof of genius, by improving on the borrowed hint,

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by adding new beauties, or delivering a known truth with greater elegance and justness.

GENIUS implies *regularity*, as well as comprehensiveness of imagination. Regularity arises in a great measure from such a turn of imagination as enables the associating principles, not only to introduce proper ideas, but also to connect the design of the whole with every idea that is introduced. When the design is steddily kept in view, and the mind so formed as to be strongly affected by that associating quality by which the design is related to the means of executing it, the imagination can scarce fail of being regular and correct. Any conception that is present, will introduce most readily those ideas which are related to the main design, as well as to itself, though there should be a thousand others bearing the same relation to itself, but unconnected with the general subject. These latter have only one tie, but the former have a double relation, and will therefore rush into the thoughts with double violence. They will occur and be observed, while the rest never come into view, or, if they make their appearance, are rejected so quickly that we instantly forget our ever having thought of them.

them. No sooner does the imagination, in a moment of wandering, suggest any idea not conducive to the design, than the conception of this design breaks in of its own accord, and, like an antagonist muscle, counteracting the other association, draws us off to the view of a more proper idea.

IN this manner an attachment to the design naturally produces that regularity of imagination, that capacity of avoiding foreign, useless, and superfluous conceptions, at the same time that none necessary or proper are passed by, which is always most perfect in the greatest geniuses, and constitutes no inconsiderable part of their excellence. As acuteness of smell carries a dog along the path of the game for which he searches, and secures him against the danger of quitting it, upon another scent: so this happy structure of imagination leads the man of genius into those tracks where the proper ideas lurk, and not only enables him to discover them, but, by a kind of instinctive infallibility, prevents him from turning aside to wander in improper roads, or to spend his time in the contemplation of unapposite ideas. As the bee extracts from such flowers as can supply

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them, the juices which are proper to be converted into honey, without losing its labour in sipping those juices which would be pernicious, or in examining those vegetables which are useless; so true genius discovers at once the ideas which are conducive to its purpose, without at all thinking of such as are unnecessary or would obstruct it. The extent of Homer's imagination is not more remarkable than its regularity. Poets of inferiour genius would have comprehended a history of the Trojan war in one of his poems, and all the events of the life of Ulysses in the other: but his correct imagination admits no detail inconsistent with the unity of the fable (*m*), no shining episode that can be deemed unconnected with the subject, nor a single image unsuitable to the nature of his work. In the writings of Newton, we scarce find any observation that is superfluous, any experiment whose force is fully implied in any other;

(*m*) This is remarked particularly by Aristotle, as one of Homer's chief and distinguishing virtues. "Ὁ δ' Ὅμηρος ὥσπερ καὶ τὰ ἄλλα διαφέρει, καὶ τοι τ' εἰκεῖ καλῶς ἰδεῖν. Ὀδυσσεῖαν γὰρ ποιῶν, οὐκ ἐπίησεν ἅπαντα ὅσα αὐτῷ συνέβη·——— ἃν οὐδὲν θάτερον γενομένου, ἀναγκαῖον ἦν, ἢ εἰκὸς θάτερον γενέσθαι· ἀλλ' ἃ περὶ μίαν πράξιν, οἷαν λέγομεν τὴν Ὀδυσσεῖαν, συνέσθαι· ὁμοίως δὲ καὶ τὴν Ἰλιάδα. Περὶ ποιητ. κεφ. η. Διὸ ὥσπερ εἶπομεν ἥδη καὶ ταύτῃ θεισπέσιος ἀνφανείῃ Ὅμηρος παρὰ τοὺς ἄλλους, τῷ μὴδὲ τὸν πόλεμον καὶ περ ἔχοντα ἀρχὴν καὶ τέλος, ἐπιχειρῆσαι ποιεῖν ὅλον. κ. τ. λ. κεφ. κγ.

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any question or problem which has not something peculiar.

NEITHER fertility nor regularity of imagination will form a good genius, if the one be disjoined from the other. If fertility be wanting, the correctest imagination will be confined within narrow bounds, and will be very slow in its operations; there can be no penetration or copious invention. If regularity be absent, an exuberant invention will lose itself in a wilderness of its own creation. There is a false fertility, which arises from a disordered and irregular fancy. As the same idea bears some relation to an infinite number of other ideas, the associating principles may lead us, after a very few steps, to such ideas as are connected with the last that was present, yet have no connexion either with the former ones, or with the main design. A man, therefore, who follows any association, however trivial or devious, that hits his fancy, may show a great deal of imagination without displaying any real genius. The imagination produces abundance of glaring, brilliant thoughts; but not being conducive to any fixed design, nor organized into one whole, they can be regarded only as an abortion of fancy,

not as the legitimate progeny of genius. A multitude of ideas, collected by such an imagination, form a confused chaos, in which inconsistent conceptions are often mixt, conceptions so unsuitable and disproportioned, that they can no more be combined into one regular work, than a number of wheels taken from different watches, can be united into one machine. Were it necessary to produce instances of a fruitful imagination unproductive of true genius, we might find enough among those pretenders to poetry, who can, through many lines, run from one shining image to another, and finish many harmonious periods, without any sentiment or design; or among those pretenders to science, who can devise a hundred experiments, coinciding in all their material circumstances, without a view to any conclusion, and without advancing useful knowledge a single step. Such imagination is like a tree so overcharged with fruit, that no part of it can come to full maturity.

BUT even when a false luxuriance of fancy does not extinguish true genius, it very much diminishes its force and beauty. Sometimes it overloads every subject with a superfluity of illustration

illustration or of ornament, which either wearies by introducing prolixity, or dazzles too much to give entire satisfaction. A painter who indulges this exuberance of fancy, will multiply figures which increase the composition of his work without adding to its expression, which embarrasses the spectator without having any share in the action, and which seem to be introduced only that they may awkwardly fill up an empty space upon the canvas. Marini, says a French critic (*n*), if he mentions a nightingale or a rose, says every thing on the subject that he can imagine; far from rejecting any idea that occurs to him, he goes in search of such as cannot naturally occur; he always lavishes on his subject, every thing that can be thought or said. Sometimes luxuriance of imagination produces an irregular conduct in works of genius, carrying the author every now and then out of sight of his design, into digressions which have a very slender connexion

(*n*) Cavalier Marin ne s'est jamais vu une imagination plus fertile ne moins réglée que la sienne. S'il parle d'un rossignol ou d'un rose, il en dit tout ce qu'on en peut imaginer; bien loin de rejeter ce qui se présente, il va chercher ce qui ne se présente pas, il épuise toujours son sujet. 4 *Entret. d'Artiste et d'Eugene.*

with it. This is remarkably exemplified in Ariosto. He possesses great readiness and quickness of genius; his inventions are surprisingly various; but that vivacity and agility of fancy from which he derives these virtues, has betrayed him into continual disorder and incoherence, and unnatural interruptions of his story. The *Fairy Queen* discovers inexhaustible richness of invention, but is chargeable with the like irregularity. It would be possible to bring instances of both these kinds of vicious redundance from the writings of a very great philosopher; we might point out many passages in *The Essay on Human Understanding*, in which Mr. Locke has indulged both a tedious diffuseness in the illustration of his subject, and unseasonable digressions from it.

A MAN is sometimes so entirely under the power of accidental associations, that he seems scarce to have proposed any end, but to have designed to begin with one idea, to go from that to any other which it happened by any means to suggest, and so from this to others, yielding up the mind to follow passively whatever associations chance to affect it. This is in an eminent degree the case of Montaigne
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in many of his essays. He says justly of himself, "What are these essays of mine but
" grotesques and monstrous pieces of patch-
" work, put together without any certain
" figure, or any order, connexion, or pro-
" portion, but what is accidental (*o*)?" This style of composition, carried to the utmost degree of incoherence, has been lately introduced: novelty, along with a great degree of wit, humour, and fine feelings, procured the first attempt considerable success; and this success has raised a multitude of insipid imitators. It is only uncommon merit in the parts, that can gain indulgence to such writings: the total want of design is an essential defect, and shows a capital imperfection in the genius of the writer, an irregularity of imagination.

THERE is in the human mind a strong propensity to make excursions; which may naturally be expected to exert itself most in those who have the greatest quickness and compass of imagination. If it be indulged without reserve, it will produce incoherent medleys, fantastical rhapsodies, or unmeaning

(*o*) Liv. i. ch. 27.

reveries. Often, however, the bye-roads of association, as we may term them, lead to rich and unexpected regions, give occasion to noble fallies of imagination, and proclaim an uncommon force of genius, able to penetrate through unfrequented ways to lofty or beautiful conceptions. This is the character of Pindar's genius, the boldness of which more than compensates for its irregularity. The truest genius is in hazard of sometimes running into superfluities, and will find occasion to prune the luxuriance, and rectify the disorder of its first conceptions. But this faculty can never be reckoned perfect, till it has acquired a capacity of avoiding them in most cases. It must supply a large stock, and at the same time manage it with economy. While it produces all that is necessary, it must evite all that is superfluous (*p*).

THUS to render genius complete, fertility and regularity of imagination must be united. Their union forms that boundless penetration which characterises true genius. By their

(*p*) This is well expressed by Quintilian: speaking of rhetorical common-places, he observes, that they will be hurtful, rather than beneficial; "Nisi et animi quædam ingenita natura, et studio exercitata velocitas, recta nos ad ea quæ conveniunt causæ, ferant." *Instit. Orat.* lib. v. cap. 10.

union

union they will be both improved: the one will give us an ample choice; the other will prevent our choice from being perplexed with needless multiplicity. An extensive imagination, impressed with a strong association of the design, and regulated by it, will draw out from the whole compass of nature, the suitable ideas, without attending to any other. In studying the works of a great genius, we can scarce avoid supposing, that all possible conceptions have been explicitly exposed to his view, and subjected to his choice. The apposite materials are collected in as great abundance, and presented with as great propriety, as if this had been the case: and yet perhaps, no other ideas have occurred to him, but those which he has used. They, and they alone, have been presented with entire propriety, by the regularity of a comprehensive imagination retaining sight of the design through all the steps of its progress. This effect, which results from the union of these two virtues, is conspicuous in the great poet and in the great philosopher whom we have already mentioned, as eminently possessing both. It may be observed by contrasting a single description of Shakespeare or

Thomson, with the laboured delineations of a poetaster, who would supply the want of genuine fancy by the industry of observation; in the former, all the striking features of the object, and none else, are strongly marked; in the latter, every circumstance seems to be taken notice of with the minuteness of a natural historian; but after all, those features are omitted, which are fittest for making an impression on the fancy. Compare Euclid with his commentators; the opposition that may be remarked between them, will set the character of real genius in a strong light: the train of Euclid's propositions is simple, yet complete; his laborious expositors appear to have intended to amass all possible propositions, however trifling or unnecessary. One can scarce read a paragraph in Butler's *Analogy*, or a chapter in Montesquieu's *Spirit of Laws*, without being struck with the notion, that the whole course of Providence was directly in the view of the one, and the whole history of mankind in the view of the other; with so great appearance of readiness do they observe even the remotest and least obvious circumstances which can any wise affect their argument. In studying a work of true genius,

nus, when we attend to the multitude and variety of the materials, we wonder how the author could have found them all; and when we reflect how proper and apposite every part is, we are apt to think that it must have occurred to almost any person. Such is the effect of copiousness and regularity of imagination, united and harmoniously exerted.

GENIUS implies likewise *activity* of imagination. Whenever a fine imagination possesses healthful vigour, it will be continually starting hints, and pouring in conceptions upon the mind. As soon as any of them appears, fancy, with the utmost alertness, places them in every light, and enables us to pursue them through all their consequences, that we may be able to determine, whether they will promote the design which we have in eye. This activity of imagination, by which it darts with the quickness of lightning, through all possible views of the ideas which are presented, arises from the same perfection of the associating principles, which produces the other qualities of genius. These principles are so vigorous, that they will not allow the mind to be unemployed for a moment, and
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at the same time constantly suggest the design of the work, as the point to which all this employment tends. A false agility of imagination produces mere useless musing, or endless reveries, and hurries a man over large fields, without any settled aim : but true genius pursues a fixed direction, and employs its activity in continually starting such conceptions as not only arise from the present idea, but also terminate in the general subject : and though a thousand arrangements of the conceptions which it starts, should fail of answering the intention, it is indefatigable in trying new arrangements, till it can happily accomplish one that answers it. Whenever an image or a sentiment occurs to the poet or the orator, imagination sets it in every possible light, enables him to conceive its genuine effect, and thus puts it in his power to judge, whether it ought to be rejected or retained. A philosopher no sooner thinks of an experiment or an argument, than imagination, by representing it in every attitude, enables him to determine, what will be its force, and whether it will be to his purpose. In this manner the restless activity of imagination
quickly

quickly constructs a sort of model by which we may form some idea of the work, before we proceed to execute it.

THIS activity of imagination is of great importance to genius. Genius may indeed, in some degree, exist without it; imagination may be comprehensive when it is exerted, and correct, and yet not active. But without activity, genius will never exert itself, except when excited and pushed forward by some external cause; activity of fancy is like an internal stimulus, which will not allow genius to lie idle or dormant, but makes it operate spontaneously and with constancy. Without it, invention would at best be very slow. Even after materials were suggested, their propriety could not be judged of, till actual trial were made of their positions and effects, at a great expence of time and labour : and as such trial would be extremely tedious and difficult, we would either take up with the first view or position that occurred, or relinquish all attempts, discouraged by the prospect of that fatigue which must attend the improvement of our plan. But when fancy is expeditious in exhibiting every possible arrangement of our conceptions, it

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quickly

quickly puts it in our power to perceive all their consequences and relations to our subject, and enables us easily to make a choice, and soon to finish our invention.

THUS the force of the imagination, or the vigour of the associating principles, produces genius, so far as it regards the collection, and even the choice of fit materials for the discovery that is proposed.

BUT invention is not completed by merely depositing a sufficient quantity of proper materials, in any order, as in a magazine or store-house. In every case, some degree of regular disposition is implied in the very notion of invention, and comes within the province of genius (*q*). It is not sufficient for a builder to collect stones, timber, and whatever else is necessary for the edifice, except they be also properly disposed and united in the fabric; so in the arts and sciences, a huge collection of conceptions which bear some relation to one another and to the main subject, will form only a confused heap, if they be not, by a proper disposition, united into

(*o*) Collocare autem, etsi est commune, tamen ad inven-
endum refertur. CIC. *partit. Orat.*

one regular work (*r*). A piece of painting cannot be said to be designed, though all the figures were conceived in their due proportions, till the artist has also formed a distinct idea of the economy of the whole. If the order of the notes in a musical composition were altered, it would destroy the harmony, which was the sole object of invention. As an animal body will become monstrous, though it has all its essential members, if one of them be transferred to the place of another; so a poem will become perfectly disagreeable and fantastical, by the transposition of its parts. A dislocation destroys the vigour of any member of the body, and unfits it for its proper function; and an oration will lose its whole effect, if arguments, instead of be-

(*r*) Sed ut opera extruuntibus satis non est, saxa atque materiam, et cætera ædificanti utilia congerere, nisi disponendis iis collocandisque artificum manus adhibeatur: sic in dicendo quamlibet abundans rerum copia, cumulum tantum habeat atque congestum, nisi illas eadem dispositio in ordinem digestas, atque inter se commissas devinxerit. Nec immerito secunda quinque partium posita est, cum sine ea prior nihil valeat. Neque enim, quanquam fuis omnibus membris statua sit, nisi collocetur. Et siquam in corporibus nostris aliorumve animalium partem permutes et transferas, licet habeat eadem omnia, prodigium sit tamen. Et artus etiam leviter loco moti, perdunt quo viguerunt usum: et turbati exercitus sibiipsi sunt impedimento. Nec mihi videntur errare, qui ipsam rerum naturam stare ordine putant; quo confuso, peritura sunt omnia. *QUINT. Inst. Orat. lib. vii. cap. 1.*

ing distinctly urged, are blended together without articulation. In science too, a multitude of ideas, if they be not arranged in such a manner that their connexion may be perceived; instead of leading us to discover a conclusion, will only involve us in perplexity, as an army thrown into disorder, can make no advantage of its numbers, but, on the contrary, obstructs its own motions. In every case, disposition is so intimately connected with invention, and even interwoven with it, that it is impossible to separate them even in idea. If therefore imagination contribute nothing to the disposition of the materials, it will follow, that genius must, in a considerable degree, derive its origin from some other power of the mind. But it will appear upon enquiry, that imagination contributes very much to the disposition of every work.

WHEN a person starts the first hint of a new invention, and begins to meditate a work either in art or science, his notion of the whole is generally but imperfect and confused. When a number of apposite conceptions are collected, various views of their connexions open to him, and perplex his choice.

choice. But by degrees the prospect clears: As related ideas are apt to be associated, so, by the very same constitution of our nature; those that are most nearly related will be most strongly and intimately associated together. The operations of genius in forming its designs, are of a more perfect kind than the operations of art or industry in executing them. A statuary conceives all the parts of his work at once, though when he comes to execute it, he can form only one member at a time, and must during this interval leave all the rest a shapeless block. An architect contrives a whole palace in an instant; but when he comes to build it, he must first provide materials, and then rear the different parts of the edifice only in succession. But to collect the materials, and to order and apply them, are not to genius distinct and successive works. This faculty bears a greater resemblance to *nature* in its operations, than to the less perfect energies of *art*. When a vegetable draws in moisture from the earth, nature, by the same action by which it draws it in, and at the same time, converts it to the nourishment of the plant: it at once circulates through its vessels, and is assimilated

to its several parts. In like manner, genius arranges its ideas by the same operation, and almost at the same time, that it collects them. The same force of association which makes us perceive the connexion of all the ideas with the subject, leads us soon to perceive also the various degrees of that connexion. By means of it, these ideas, like a well-disciplined army, fall, of their own accord, into rank and order, and divide themselves into different classes, according to their different relations. The most strongly related unite of course in the same member, and all the members are set in that position which association leads us to assign to them, as the most natural. If the principles of association should not at first lead readily to any disposition, or should lead to one which is disapproved on examination, they continue to exert themselves, labour in searching for some other method, project new ones, throw out the unapposite ideas which perplex the mind and impede its operations, and thus by their continued efforts and unremitted activity, conduct us at length to a regular form, in which reason can find scarce any idea that is misplaced.

THUS

THUS imagination is no unskilful architect; it collects and chuses the materials; and though they may at first lie in a rude and undigested chaos, it in a great measure, by its own force, by means of its associating power, after repeated attempts and transpositions, designs a regular and well-proportioned edifice.

A WEAKNESS of this methodising power may arise either from a want of activity in the imagination, or from our having a slight association of the design. The former prevents our turning our conceptions readily into different forms, and thereby leads us to take up with the first that offers, however incorrect. The latter prevents our being affected by the different connexions of the parts, which arise from their having different respects and subordinations to the general design. From whatever cause this weakness proceeds, it is a great imperfection in genius. It renders it slow in forming its productions, as the confusion of the materials occasions difficulty in applying them to use: it also renders them less valuable when they are formed, as they retain, in some measure, the appearance of disorder, intricacy, and disagreeable perplexity. Aristotle considers the

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irregularity of disposition in Euripides as a capital imperfection, for which nothing almost but his singular power of interesting and affecting could have made atonement (s). In every art, the disposition of the subject into a consistent plan, is indeed one of the most important offices of invention; nor is it a less momentous article, in discoveries which respect the sciences. It is not more absolutely necessary in an algebraical investigation, to ascertain the several quantities by distinct symbols, than to dispose these symbols, and the equations which are composed of them, in a regular and convenient order.

ENTHUSIASM has been generally considered as a very common, if not an inseparable attendant of genius. Poets have been looked upon as inspired, both by themselves and others. No man can be an accomplished orator, who is not possessed of such sensibility of heart, as to be actuated, at pleasure, by the passions which he would excite in others. Even the speculative philosopher and the cool mathematician have often displayed a very high degree of ardor in the exertion of their genius. The explication which has been given of the nature of genius, will not only

(s) Περὶ ποιητῶ. κεφ. ιγ. quoted above, Sect. i. Note (b).

enable us to account for this, but incline us also to reckon it impossible that ever an high degree of genius should be unaccompanied with something of that elevation and warmth of imagination, which we term enthusiasm (s). Genius turns our thoughts habitually to such subjects as are adapted to it; habitual application to any subject, enables us to form strong and lively conceptions of every thing relating to it; a strong conception naturally invigorates and elevates the imagination in contemplating it; and while this frame continues, all the actions of the mind will be strong and vehement. Such is the disposition with which a man of genius turns his view to any subject; as soon as he begins to think how it may be compleated, he eyes it as a rich treasure, with delight and conscious pride; he triumphs in the prospect of forming

“——he knows not what excelling things,” and pursues all the associations which it presents, with incredible eagerness and spirit. When an ingenious track of thinking presents itself, though but casually, to true ge-

(s) Aristotle, who will not be suspected to be too great a favourer of enthusiasm, seems to assert, That it alone can dispose men to search for new inventions in philosophy : Διὰ γὰρ τὸ ΘΑΥΜΑΖΕΙΝ οἱ ἀνθρώποι καὶ εἶναι, καὶ τὸ πρῶτον ἤρξαντο φιλοσοφῆναι. Μετὰ τὰ φυσικά, α. κςφ. β.

nius, occupied it may be with something else, imagination darts alongst it with great rapidity; and by this rapidity its ardor is more inflamed. The velocity of its motion sets it on fire, like a chariot wheel which is kindled by the quickness of its revolution. As a sprightly courser continually mends his pace, so genius, in proportion as it proceeds in its subject, acquires new force and spirit, which urges it on so vehemently, that it cannot be restrained from prosecuting it. Difficulties in the execution only excite its vigour, rouse its keenness, and draw out its utmost efforts to surmount them. Its motions become still more impetuous, till the mind is enraptured with the subject, and exalted into an extasy. In this manner the fire of genius, like a divine impulse, raises the mind above itself, and by the natural influence of imagination actuates it as if it were supernaturally inspired. The ardor which thus springs from the exertion of genius, has sometimes risen to a degree of fervour perfectly astonishing. Archimedes (*t*), Protogenes (*u*), and Parmegi-

(*t*) Quem ardorem studii censetis fuisse in Archimede, qui, dum in pulvere quædam describit attentius, ne patriam quidem captam esse senserit? Cic. *de Fin.* lib. v.

(*u*) Erat Protogenes in suburbano hortulo suo, hoc est Demetrii castris. Neque interpellatus præliis, inchoata opera intermisit omnino.

ano (x), are said to have been so totally entranced, the two latter in painting, and the former in the less enthusiastic investigation of mathematical truth, as not to be diverted from their works, by all the terrors of hostile armies taking by storm the places where they were employed. It is reported of Marini, that he was so intent on revising some stanzas of his Adonis, that he suffered one of his legs to be burnt for a considerable time, before he was sensible of it (y).——We may remark farther, That as a kind of enthusiastic ardour naturally arises from the exertion of genius, so this ardour greatly assists and improves the operations of genius. By elevating and enlivening the fancy, it gives vigour and activity to its associating power, enables it to proceed with alacrity in searching out the necessary ideas; and at the same time, by engrossing us wholly in the present subject, preserves us from attending to foreign ideas, which would confound our thought, and retard our progress (z).

(x) Graham's account of painters.

(y) *Eloges des Sçavans*, tom. 2.

(z) *Les Peintres et les Poetes ne peuvent inventer de sang froid. On fait bien qu'ils entrent en un espece d'enthousiasme, lorsqu'ils produisent leurs idées, &c. Reflex. Crit. sur la poes. et sur la peint.* 2 Part. 2 Se^e A.

WE have now explained, how genius arises from the perfection and vigour of the *imagination*. However capricious and unaccountable this faculty may be often reckoned, yet it is subject to established laws; and is capable, not only of such extent as qualifies it for collecting ideas from all the parts of nature, but also of such regularity and correctness as is in a great measure sufficient for avoiding all improper ideas, for selecting such as are subordinate to the design, and for disposing them into a consistent plan, or a distinct method. It is the first author of all inventions, and has greater influence in carrying them to perfection, than we are ready to suspect. It forms what we properly call genius in every art, and in every science. It is always necessary indeed, that *judgment* attend it in its operations, and assist it in discovering truth or beauty. In what ways it does so, we shall next enquire.

S E C T. IV.

Of the influence of Judgment upon Genius.

THOUGH genius be properly a comprehensive, regular, and active imagination, yet it can never attain perfection, or exert itself successfully on any subject, except it be united with a sound and piercing judgment. The vigour of imagination carries it forward to invention; but understanding must always conduct it and regulate its motions. A horse of high mettle ranging at liberty, will run with great swiftness and spirit, but in an irregular track and without any fixt direction: a skilful rider makes him move straight in the road, with equal spirit and swiftness. In like manner, a fine imagination left to itself, will break out into bold fallies and wild extravagance, and overleap the bounds of truth or probability: but when it is put under the management of sound judgment, it leads to solid and useful invention, without having its natural sprightliness in the least impaired.

It is the union of an extensive imagination with an accurate judgment, that has ac-

accomplished the great geniuses of all ages. In matters of science, the necessity of judgment is obvious: all the collections and arrangements of ideas which imagination makes, are immediately subjected to reason, that it may infer truth. If we be not careful to distinguish those operations of the mind which are performed in conjunction, we shall be apt to refer philosophical genius wholly to reason, overlooking the influence of imagination. The assistance of reason is as truly necessary in the fine arts as in science, though in these it has not the appearance of being so constantly applied. It is very remarkable that all the fine arts have been cultivated, and even brought to perfection, before the rules of art were investigated or formed into a system: there is not a single instance of any art that has begun to be practised in consequence of rules being prescribed for it. The first performers could not have explained the several rules which the nature of their work made necessary; but their judgment was notwithstanding so exact and vigorous as to prevent their transgressing them. Their correctness is so wonderfully perfect, that critics discovered the rules which they prescribe, only by remarking those laws by which true

genius,

genius, though uninstructed, had actually governed itself. Aristotle does not invent new rules of composition, but only points out those which Homer had formerly observed in the Epos, Sophocles in the Drama, and many of the Grecian orators in Eloquence. The same observation may be extended to painting, music, and every other art. The great geniuses who invented and improved them, have possessed the acutest judgment, which has faithfully attended them, and carefully guarded their steps in those distant and unfrequented regions which the boldness of their fancy led them to explore: and judgment has sometimes exerted itself with so great success, that the person who attempted the first production in an art, has exhibited a perfect model, in which posterity could find no fault, and the excellence of which none of their attempts could equal. The Iliad is at once the first, and the best of Epic poems, the admiration and the standard of all succeeding ages. Had Homer, along with his rich imagination, possessed inferior judgment, his poem must, like the works of Shakespear, have had great defects, excusable indeed, but conspicuous and undeniable. A perfect judgment is seldom bestowed by Nature,
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even on her most favoured sons ; but a very considerable degree of it always belongs to real genius. It may be remarked in the most incorrect and irregular artists ; even when it has not force enough to discern every fault, or when the violence of imagination is too great to suffer it to be exerted with sufficient severity, yet still it prevents perfect absurdity, and restrains imagination from frantic excursions. Pindar is judicious even in his irregularities. The boldness of his fancy, if it had been under no control from reason, would have produced, not wild sublimity, but madness and frenzy. Shakespear's judgment was not enough improved to enable him always to avoid improper subjects, unnatural and improbable incidents, forced and quibbling expressions, or to perceive the regularity and simplicity which best suits the nature of the drama ; but in supporting the propriety of character, in marking the fit expressions and the natural effects of the several passions, and in many other particulars, he displays such an uncommon accuracy of judgment, as leads us to impute his blemishes, rather to the bad taste of those for whom he wrote, than to any defect in his own understanding. Judgment is of so great importance, that,

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though we must often acknowledge genius in works in which judgment has not been scrupulously exercised, yet this circumstance never fails to render them far less valuable than they would have been, if they had been finished with correctness. The irregularity of Rubens's designs, and his injudicious mixture of incongruous personages in many of his pictures, throw a shade over those excellencies which he possessed in perfection. Nothing less than the highest degree of genius can obtain lasting and thorough approbation, when judgment has not been accurately exercised. Shakespear's unequalled genius has secured him admiration. But very great genius was not able to preserve Dryden from the ridicule of those who were far his inferiors, on account of incorrectnesses into which his unfortunate circumstances betrayed him; nor has it obtained from impartial posterity, so great attention and applause as much less abilities, more judiciously exerted, would have certainly commanded.

IN a man of genius, imagination can scarce take a single step, but judgment should attend it. The most luxuriant fancy stands most in need of being checked by judgment. As a rich soil produces not only the largest quantity

tity of grain, but also the greatest profusion of such weeds as tend to choak it; so a fertile imagination, along with just and useful ideas, produces many trifling, false, and improper thoughts, which, if they be not immediately examined by reason, and speedily rejected, will over-run and obstruct the truth or the beauty which the others might have produced (a). Judgment cannot collect ideas, but it revises those which fancy has collected, and either adopts or rejects them, as it finds cause. Though a bright and comprehensive fancy be the principal ingredient in genius, yet nothing is so dangerous as to affect to display it constantly, or to indulge it without any control from reflection; nothing is productive of greater faults. This leads philosophers to construct whimsical hypotheses, instead of constructing just theories. This leads poets to describe improbable events and unnatural characters, and to search for unseasonable wit and ill-timed splendour, when judgment would have directed them to imitate nature with exactness, and to study simplicity

(a) Nihil est feracius ingeniis, iis præsertim, quæ disciplinis exculta sunt. Sed ut segetes fecundæ et uberes, non solum fruges, verum herbas etiam effundunt inimicissimas frugibus; sic interdum ex illis locis, aut levia quædam, aut causis aliena, aut non utilia gignuntur, quorum ab oratoris judicio delectus magnus adhibebitur. Cic. *Orator*.

of expression. This leads painters capriciously to create imaginary decorations, instead of inventing natural and consistent embellishments. Imagination must set all the ideas and all the analogies of things, which it collects, before the discerning eye of reason, and submit them absolutely to its sovereign decision: It is justly observed by Quintilian, that every fiction of the human fancy is approved in the moment of its production (*b*). The exertion of the mind which is requisite in forming it, is agreeable; and the face of novelty which infant conceptions wear, fails not to recommend them promiscuously, till reason has had time to survey and examine them. Were reason never to scrutinize them, all our ideas would be retained indiscriminately, and the productions of fancy would be perfectly monstrous. While a man is engaged in composition or investigation, he often seems to himself to be fired with his subject, and to teem with ideas; but on revising the work, finds that his judgment is offended, and his time lost. An idea that sparkled in the eye of fancy, is often condemned by judgment as false and unsubstantial. A more rigid exercise of this latter

(*b*) *Omnia nostra, dum nascuntur, placent. Inst. Orat. lib. x. cap. 3.*

faculty, would have preserved Tasso from introducing sentiments which have show without justness, and figures which surprise and dazzle, but are unsuitable to the purpose to which they ought to have been subservient; and would have enabled him to escape the censure of having overspread his work with tinsel, and thus sullied the lustre of the pure gold which it contains (c).

A FERTILE imagination is apt to overload a work with a superfluity of ideas: an accurate judgment rejects all that are unnecessary. Shakespear was not always able to keep the richness of his fancy from displaying itself in cases where judgment would have directed him to control it. That very exuberance of imagination which commands our admiration, is sometimes indulged so far as necessarily to incur our censure. We need not be at a loss for an example. In the *Midsummer Night's Dream* (d), Helena upbraiding Hermia, de-

(c) An ingenious critic, speaking of the rich poetic vein of Ariosto, says, Elle l'emporte véritablement sur la poésie de la Jérusalem délivrée, dont les figures ne sont pas souvent convenables à l'endroit où le Poète les met en œuvre. Il y a souvent encore plus de brillant et d'éclat dans ces figures que de vérité. Je veux dire qu'elles surprennent et qu'elles éblouissent l'imagination, mais qu'elles n'y peignent pas distinctement des images propres à nous intéresser. Voilà ce que M. Despreaux a défini, le clinquant du Tasse. *Reflex. Crit. sur la poésie et sur la peinture*, tome i. sect. 34.

(d) Act 3. scene 8.

scribes the closeness of their early friendship in the most natural manner, by expressive circumstances suited to the state of childhood ;

Is all the counsel that we two have shar'd,
The sisters vows, the hours that we have spent,
When we have chid the hasty-footed time
For parting us ; O ! and is all forgot ?
All school-days friendship, childhood innocence ?
We, Hermia, like two artificial gods,
Created with our needles both one flower,
Both on one sampler, sitting on one cushion ;
Both warbling of one song, both in one key ;
As if our hands, our sides, voices and minds
Had been incorp'rate. —————

But here the Poet's own imagination takes fire, and he goes on :

————— So we grew together
Like to a double cherry, seeming parted,
But yet an union in partition,
Two lovely berries moulded on one stem ;
Or with two seeming bodies, but one heart,
Two of the first, like coats in heraldry,
Due but to one, and crowned with one crest.

And his imagination has crouded together more images than would have been proper though he had been describing infant friendship in his own person, not to mention that some of them are frigid and far-fetched.

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But the redundance is the more faulty, as the description is put into the mouth of Helena, who was too little at ease, too much distracted with vexation, to be at leisure to search for a multitude of similitudes.

IMAGINATION will be often led by slight and incidental associations, to suggest ideas which, when canvassed by judgment, are discovered to be foreign and improper. When a man is no longer affected by the association which conducted him to them, he wonders how he ever could have thought that pertinent, which he once admired. Painters of considerable rank have represented friars in the habit of their order, as present at some of our Saviour's miracles. Judgment must perceive this to be totally absurd; but their religion prevented their exercising judgment in the case. No less an artist than Michael Angelo introduces Charon and his boat into the solemnities of the future judgment painted according to the Christian revelation. The slightest exertion of judgment, would have made him sensible of so great an incongruity. An idea may often likewise, in one point of view, be adapted to a work, which, if set in another light, would be unsuitable, or less apposite. While fancy conceives the
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various attitudes in which the idea may be placed, judgment is wakeful and observant, that it may chuse the properest.

REGULARITY of imagination, which is of the greatest importance in genius, could never be acquired without the aid of judgment. It is only judgment constantly exerting itself along with fancy, and often checking it and examining its ideas, that produces by degrees a habit of correctness in thinking, and enures the mind to move straight forward to the end proposed, without declining into the by-paths which run off on both sides. Imagination is a faculty so wild in its own nature, that it must be accustomed to the discipline of reason before it can become tame and manageable enough for a correct production. Nor will it be capable of this even after it has acquired the greatest possible regularity, except judgment attend it and perpetually curb its motions. The most regular imagination will sometimes make an unnatural excursion, and present improper ideas; judgment must therefore be ready to review its work, and to reject such ideas. Many of Bacon's conjectures concerning subjects which he had not opportunity to examine perfectly, are false though they be ingenious, and would have been dif-

avowed by judgment, when it had canvassed them. Newton's imagination was more correct than his, and more constantly under the control of judgment; yet reason would have perhaps, on examination, rejected some of the suppositions which he makes in his queries. The first sketch of every work of genius, is always very different from the finished piece. Not only are many things added by the posterior essays of imagination, affected by new associations in repeated views of the subject, and thus penetrating deeper into its nature; but also many things are retrenched or altered by judgment on a revival, which it had not force enough to prevent fancy from exhibiting in the course of the invention. Association could not recal the idea of the design, in order to bring back fancy when it has wandered from it, if judgment did not inform us that it had wandered, by perceiving the tendency of the ideas which it has suggested. The finest imagination, totally destitute of assistance from judgment, would in some measure resemble a blind man, who may be very dexterous in groping the right road, but cannot know certainly, whether he continues in it, and has no means of recovering it, if he once stray.

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No degree of correctness can hinder imagination from introducing different ideas that are all conducive to the proposed design. But some of them may promote it more than others. In this case, judgment alone can determine which is fittest, and enable us to make a choice. If it did not exert itself, fancy must continue for ever at a stand, distracted with the variety, and undetermined where to fix. Sometimes again it happens, that tho' each of the ideas is subservient to the end in view, yet they are so incongruous that they cannot be all adopted with propriety. Shakespear (e) describes the terrors of death, by a variety of very striking and poetical images ;

Ay, but to die, and go we know not where,
To live in cold obstruction, and to rot,
This sensible warm motion to become
A kneaded clod ; *and the dilated spirit*
To bath in fiery floods, or to reside
In-thrilling regions of thick-ribbed ice,
To be imprison'd in the viewless winds,
And blown with restless violence round about
The pendant world.——

All the ideas here introduced are conducive to the poet's design, and might have been

(e) Measure for Measure.

suggested by the correctest fancy. It is only judgment that can disapprove the uniting of them in the same description, as being heterogeneous, derived partly from Christian manners, and partly from pagan notions. This faculty would have directed the poet to retain only the former, as being most congruous to Claudio the speaker, or, if he thought not these sufficient, to set fancy again to work, to finish the description with consistent images.

EVERY work of genius is a whole, made up by the regular combination of different parts, so organized as to become altogether subservient to a common end. The different degrees of relation which the parts bear to one another and to the end, affecting imagination in proportion to their closeness, lead it to assign to each its proper place, and thus lay the foundation of a natural disposition. But however perfectly the associating principles perform this part of their office, a person will scarce reckon himself certain of the propriety of that disposition, till it has been authorized by judgment. Fancy forms the plan in a sort of mechanical or instinctive manner: judgment, on reviewing it, perceives its rectitude or its errors, as it were scientifically;

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its decisions are founded on reflection, and produce a conviction of their justness. The same qualities which form natural relations among the parts of a work, affecting the imagination, produce correspondent philosophical relations among these parts, which judgment can contemplate, in respect of which it can compare the several parts, and discover their influence on one another, and on the whole, and can by this means perceive, without danger of error, the situations that ought to be assigned them. For instance, in a fable fit for tragedy, there are some incidents which are properly causes, and others which are their effects or consequences: causation operating on the fancy as an associating quality, will lead imagination, in the most rapid career of invention, even though it should outrun judgment, to place these incidents for the most part in their natural situation, according to the relation which subsists between them: and causation is at the same time a philosophical relation, by contemplating which judgment can determine, what incidents are fit to form the beginning, what to form the middle, and what the end. Thus even when fancy is most successful in contriving a natural disposition, it is from the review of rea-

son we derive assurance of its being natural and just. But it often happens that fancy throws its materials into disorder. In this case it is only judgment that can perceive the error. An accidental or trifling association may mislead fancy ; but judgment is not subject to the impulse, it surveys deliberately the connexions of the parts, it remarks their mutual influence, it convinces us of the impropriety of their position, and puts fancy upon making efforts to imagine others, which it attends to as they rise, and either rejects, or approves them.

To form a proper plan in any extensive work of genius, is a matter of such difficulty as to require the union of imagination and reason in their greatest strength. Imagination must exhibit all the various positions of the parts, and conceive the effect of every part in each of these positions. Judgment must at the same time survey them with a piercing eye, compare readily the effect of each part in one position, with its effect in another, and from the result of its comparisons, quickly pronounce, which is the best arrangement. Fancy could not have formed the regular plan of an epic poem, though Homer had had the strongest and most constant perception of

the end at which it aimed, if judgment had not, from the consideration of this end, and the repeated comparison of it with the means which imagination proposed for accomplishing it, discovered, in what situation every incident would produce the very greatest effect. One needs only read over the curious series of experiments by which Newton has investigated the laws of light and colours, to be convinced that it required the nicest judgment, as well as the most comprehensive imagination, to conduct them in such a manner that every succeeding one should confirm and extend the conclusions to which the preceding ones had given rise.

It deserves also to be remarked, that every difference in the nature of an invention, requires a correspondent variety in the disposition. A fine imagination will in some measure, by its own power, diversify the arrangement agreeably to the nature of the invention; but it may reap great advantage from the aid of judgment. When this faculty has considered all the circumstances of the subject, it can determine with certainty, which of the plans suggested by fancy, will most promote the perfection of the work. Demosthenes and Æschines have adopted dispositions

sitions perfectly opposite, in their orations at the trial of Ctesiphon. The opposite ends at which they aimed, suggested this contrariety of the means; but it was judgment perceiving the one disposition fittest for impressing the judges with a sense of Ctesiphon's guilt, and the other fittest for convincing them of his innocence, that determined the rival orators to chuse the opposite roads which they have taken.

THUS, while imagination is active in conceiving all the various combinations and arrangements of the ideas which it has collected, judgment must be as indefatigable in surveying them, and determining concerning their real force and consequences. It must remark in an instant those positions of them which are unfit for answering the purpose, and be able, without losing much time in scrutinizing them, to pitch upon those that are fit. Fancy throws out both the worthless earth and the rich ore; judgment, like a skilful refiner, distinguishes the one from the other, and purifies the gold contained in the latter, from the dross with which it is intermingled. The restless efforts of the most healthful imagination would be both useless and endless, if they were not subjected to the cognizance

cognizance of reason. To imagine all the possible arrangements of a set of ideas, were an unmeaning play of thought, if they merely passed through the mind, like the images that are said to succeed one another in the brown study, without reason being able to arrest such of them as it approves. Were reason only slow in her determinations, in comparison with the quickness with which fancy conceives, like Una's dwarf, *lagging behind her far away*, even this would greatly impede the work of genius, retard its progress, or stop it altogether by constantly curbing the impetuosity of fancy (*f*). Or if its spirit were too hardy to be wholly broken, it would outrun its companion; it would dispose a man to take up with the first conception that occurred, rather than weary himself in attempts to procure better, when judgment were so dull as not to distinguish readily which deserves the preference.

IN this manner judgment assists, moderates, and guides the exertions of imagination thro' the whole course of the invention. But after

(*f*) Atque plerosque videas hærentes circa singula, et dum inveniunt, et dum inventa ponderant. Quod etiam si idcirco fieret, ut semper optimis uterentur, abominanda tamen hæc infelicitas erat, quæ et cursum dicendi refrenat, et calorem cogitationis extinguit mora et diffidentia. QUINT. *Inſt. Orat.* lib. viii. proem.

imagination

imagination has desisted from its work, judgment reviews, corrects, and finishes it. In science, the work cannot receive even its rude form till reason has compared the several ideas and observations which fancy had suggested, and perceived their connexions, and inferred their consequences. And in the arts, where fancy is able to accomplish a sketch of the whole, the review of reason is absolutely necessary, to polish and improve the work. Whenever fancy happens to stray, judgment alone can perceive that it has strayed; and though it has attended fancy during the whole series of its investigations, observing its errors and drawing it off from them, it is also requisite that it renew its examination when the work is finished. It can then take a more deliberate survey of the whole, and will be able to reject or alter many things which it formerly allowed to remain untouched, either because it did not perceive them on a transient view, or because it was unwilling to chill the ardor of fancy by so long a delay as would have been necessary for amending them (g). The end leads a person to the dis-

(g) Καλῶς μοι δοκοῦσιν, ὧ Φουνδᾶτε, ποιεῖν οἱ ζωγράφοι, διὰ χρόνου τὰ ἔργα πρὶν ἢ συντελεῖν ἐπισκοποῦντες, ὅτι τὴν ὅψιν αὐτῶν ἀφιστάντες, τῇ πολλάκις κρίσει ποιοῦσι καὶ νῦν καὶ μᾶλλον ἀπτομένην τῆς παρὰ μικρὸν διαφορᾶς ἣν ἀποκρύπτει τὸ συνεχὲς καὶ τὸ συνήδες. ΠΛΟΥΤΑΡΧ. περὶ αἰσθητικῆς.

covery of the means which are adapted to it ; and the mutual relations of these means determine the form and the situation into which each of them should be thrown as it occurs ; judgment will pronounce concerning these with considerable justness, during the formation of the work : but after the work is finished, when it has the whole in its view at once, it has an opportunity of pronouncing many decisions on points concerning which it had not formerly the means of determining. A view of the whole directs it to retrench one part as superfluous in respect of the general design, to enlarge another as defective, to soften some features, to heighten others, to brighten this part, and to cast that into a shade.

IN the exertion of genius, judgment not only regulates imagination, in the ways which have been hitherto pointed out, but often likewise supplies it with new materials. Judgment cannot by its own power suggest a train of ideas, but its determinations often put fancy into a new track, and enable it to extend its views. Imagination can introduce ideas only by means of their connexion with some present perception from which it sets out in search of them ; and this perception is in
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many cases no other than a decision of judgment. Every review that judgment takes of the productions of genius, discovers some relation of the parts. This relation is a new perception which may transport fancy to others that are connected with it, and thus conduct it into regions which it did not formerly think of exploring, and from which it may bring home many conceptions fit for perfecting its work. A few experiments will enable a philosopher to exercise his judgment so far as to guess at the conclusions to which they lead, or to determine the different ways in which the phenomena that they exhibit, may be accounted for. And this exertion of reason will lead him to imagine the farther experiments that are necessary for bringing the question to a decision, experiments of which he never would have thought if this judgment had not intervened. It is only a judgment that can be the occasion of suggesting what is called an *experimentum crucis*, in philosophical enquiries. Had not judgment been properly exercised, M. Azout could never have contrived an experiment of this kind, for determining the cause of the ascent of fluids in exhausted tubes, nor Sir Isaac Newton for evincing indisputably that
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the inequality of refraction in the prismatic image, arises from an original difference in the rays of which the light of the sun is composed. When a poet has, by the exercise of judgment, determined the general nature and qualities of the incidents which will be proper for promoting the end of his poem, this determination will assist him in finding out such incidents. Homer having discovered by judgment, that the design of an epic poem would be best accomplished by a series of incidents rising naturally from one another, and by means of their mutual dependence constituting one action, doubtless found many incidents suggested to him by this view of the economy of the whole, which might have otherwise escaped his notice. Spencer having neglected to form such a previous judgment of the nature of his work, needed all the force of his amazing fancy, along with the numerous fictions of romance, to furnish him with such a variety of unconnected adventures as might continually engage the soul and fill it with surprise by their extravagance and boldness. All the assistances in invention, which orators have contrived, by means of topics and common places, are founded on

this principle; That judgment, by surveying the work directs imagination to many quarters where it may find conceptions adapted to its purpose: and Quintilian justly observes, that these artificial helps are no farther useful than as they enable imagination to take the hint from the decision of judgment, and by its own force run directly forward to those topics which suit the present case (*b*). Judgment will likewise give a new impulse to fancy, and prompt us in invention, by perceiving an error, either in the matter or in the disposition. The very same view of these which serves to detect the fault, will often suggest the means by which, not only it may be rectified, but new truth or beauty also may be produced. It is in this way that an examination of the imperfect or faulty productions of others, often enables a man of genius to make advances in art or science, and leads him on to new discoveries. In such ways as

(*b*) Illud quoque studiosi eloquentiæ cogitent, neque omnibus in causis ea quæ demonstravimus, cuncta posse reperiri: neque cum proposita fuerit materia dicendi, scrutanda singula, et velut ostiatim pulsanda, ut sciant an ad probandum id quod intendimus, forte respondeant, nisi cum discunt, et adhuc usu carent. Infinitam enim faciet ipsa res dicendi tarditatem, si semper necesse sit, ut tentantes unumquodque eorum quod sit aptum atque conveniens, experiendo noscamus. *Inst. Orat.* lib. v. cap. 10.

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these, judgment assists the imagination, by putting it in the track of invention, as well as by controlling and regulating its operations.

S E C T. V.

Of the Dependence of Genius on other intellectual Powers.

IT was formerly observed, that all our intellectual powers may be reduced to four classes, sense, memory, imagination, and judgment. We have found that Genius is the immediate offspring of the imagination, and that it is attended by judgment in all its exertions. Its relation to sense and memory, is more distant, and its dependence on them more indirect. What is the precise nature of this relation and dependence, will appear from the following observations.

THE associating principles of the mind would never exert themselves if they were not excited into action by the impulse of some object already perceived. It is only when thus excited, that imagination runs out in search of those ideas which are related to that object. On this account, in analysing the operations

operations of genius, we must at last have recourse to some perception giving rise to them, which was not itself suggested by imagination, but exhibited either by sense or by memory (a). These faculties give therefore in a manner the first hint of every invention; a hint perhaps inconsiderable in itself, but which may in some sense be considered as the source of the whole discovery that genius makes by means of it. The largest river takes its rise from some small fountain; issuing from this, it rolls its streams over a long extent of country, and is enlarged during its course by the influx of many rivulets derived from springs no more considerable than its own, till at last it becomes an impassable torrent, liker to the ocean than to the pitiful rill which purled near its source. In like manner, even those works of genius which appear most stupendous when they are compleated, spring at first from some single perception of sense or memory, obvious, it may be, and trifling, and become stupendous only by the gradual accession of ideas suggested by perceptions equally trivial and common. We admire with rea-

(a) Quicquid porro animo cernimus, id omne oritur a sensibus. Cic. *de fin.* lib. i. Καὶ διὰ τοῦτο μητέρα τῶν μουσῶν ἐμυθολόγησαν εἶναι τὴν ΜΝΗΜΟΣΥΝΗΝ. ΠΛΟΥΤΑΡΧ. περὶ παιδ. ἀγωγ.

son, the genius displayed by Newton in the discovery of the laws of gravitation which the celestial bodies observe in their revolutions. It was perhaps his perceiving by sense a stone or an apple fall to the ground, without any visible force impelling it, or the remembrance of this common appearance, that excited his genius, and directed it to that train of thought which conducted him at last to the investigation of these laws. It is affirmed by an ancient author (*b*), that the accidental hearing of the noise of a smith's hammers of different weights, gave Pythagoras the first hint of the cause of the variety of musical sounds, and led him by degrees into a complete theory of music (*c*). No philosopher would ever go in

(*b*) MACROB. lib. ii.

(*c*) An elegant modern writer relates this remarkable story, to the following purpose. "Who would have thought that the clangorous noise of a smith's hammers should have given the first rise to music? Yet Macrobius, in his second book, relates that Pythagoras, in passing by a smith's shop, found that the sounds proceeding from the hammers were either more grave, or acute, according to the different weights of the hammers. The philosopher, to improve this hint, suspended different weights by strings of the same bigness, and found in like manner that the sounds answered to the weights. This being discovered, he finds out those numbers which produced sounds that were consonants: as that two strings of the same substance and tension, the one being double the length of the other, gave that interval which is called *diapason* or an eighth; the same was also effected from two strings of the same length and size, the one having four times the tension of the other. By these steps, from so mean a beginning, did

search of a theory, if some phenomenon subjected to his immediate observation, did not dispose him to consider in what manner it may be accounted for. It is the subject in which a poet is engaged, and which he has already conceived, that leads him, by resemblance, to find out an image proper for illustrating it. In every case, sense or memory sets imagination at first in that road, by pursuing which it arrives at important inventions.

THE brightest imagination can suggest no idea which is not originally derived from sense and memory. In many cases, even in such as very much display its power, it does no more but call in seasonably the very conceptions which sense has conveyed, and which memory retains. A philosopher is often led to an important conclusion, by recollecting in its proper place a phenomenon which he remembers to have very commonly observed. A great part of poetry consists in descriptions properly introduced, of those external objects which the poet has actually observed, or in the expression on suitable occasions, of the

this man reduce, what was only before noise, to one of the most delightful sciences, by marrying it to the mathematics; and by that means caused it to be one of the most abstract and demonstrative of sciences." SPECTATOR, No. 334.

sentiments and passions which he has himself been conscious of, or which he has discovered in other men on similar occasions. It is no reproach to genius to receive its materials thus wholly prepared, from sense and memory. Its force appears sufficiently in its laying hold on them at the proper time, and arranging them in regular order. Homer's comparisons have ever been and will always be admired as indications of surprising genius: the immense variety of them, the facility with which they appear to occur, the perfect correspondence of the images with the subject for the illustration of which they are produced, and the majestic simplicity with which they are expressed, leave no room to doubt of the poet's genius. But the images themselves are generally drawn from such objects as he well remembered to have seen. The fragments of true history which the same poet has related, are to be referred wholly to memory; imagination was employed only in the introduction and application of them. In this manner, as a master-builder has his materials prepared by inferiour workmen, or as a history painter is provided with his colours by the labour of others, so the faculty of invention often receives the entire ideas which it

exhibits, from the inferiour faculties, and employs itself only in applying and arranging them. Hence it proceeds that poets of original genius always express the manners of their own age, and the natural appearances which have occurred to themselves. It was Homer's extensive observation of men and things that supplied him with so immense a field of thought. The customs of the age directed Spenser, at least in part, to form his plan on allegorical adventures of chivalry (*d*), and induced Tasso to found his poem on a holy war. Ossian's imagery is so different from what would be suggested by the present state of things, that a modern writer could scarce bring himself to run into it, much less to preserve it uniformly, by the utmost efforts of study, or even by designed imitation; but it is perfectly agreeable to all that we can conceive of the face of nature and the state of society in the times when that author is supposed to have lived.

BUT even when imagination does not suggest conceptions which have been received entire from sense and memory, but creates such as are properly its own, it must still notwithstanding derive from these sources, the

(*d*) WARTON'S *Observations on Spenser*, p. 218.

ingredients of which it compounds them. The parts and members of its ideas have been conveyed separately by the senses, and deposited in the memory, though fancy has united them in a manner in which they were never observed to be combined. The power of fancy is subjected to the same limitation as our power over the natural world. Give it a flock of simple ideas, and it will produce an endless variety of complex notions: but as we can create no new substance, so neither can we, except perhaps in a few very peculiar instances, imagine the idea of a simple quality which we have never had access to observe. When a philosopher attempts a new experiment, he only places bodies already known, in a situation in which these bodies never were observed, but of which he has an idea by having seen other bodies placed in that or a like relation; and if he be able, previous to actual trial, to guess what appearances the experiment will disclose, the ability arises only from his remembering the result of another experiment in some measure similar to the present. The boldest fictions of the poets, which least resemble any thing in nature, are yet composed of parts which really exist in nature. When Homer formed the

idea of *Chimera*, he only joined into one animal, parts which belonged to different animals; the head of a lion, the body of a goat, and the tail of a serpent (*c*). Phidias is said to have formed his celebrated statue of Jupiter, merely by the force of his imagination, from Homer's description of that deity (*f*). Yet still he only varied a little the ordinary features of a man. Even those painters who have been most celebrated for invention, have generally satisfied themselves with inventing the action, and have derived the particular figures and their attitudes from observation of several individuals, and sometimes even from the imitation of one individual.

INDEED though it were possible for fancy to create ideas wholly unlike to those things which men have access to observe, the attempt would prove entirely useless. The artist might amuse himself with the forms of his own creation, but they would produce no effect either on the taste or on the passions of

(*c*) Πρόσθε λέων, ὅπιδεν δὲ δράκων, μέσση δὲ χίμαιρα.

Ιλ. ζ. ν. 181.

(*f*) Ἀπομνημονεύουσι δὲ τοῦ Φειδίου ὅτι πρὸς τὸν Πάριον εἶπε πυνθαιμενον πρὸς τι παράδειγμα μέλλει ποιῆσαι τὴν εἰκόνα τοῦ Διὸς, ὅτι πρὸς τὴν Ὀμήρου δι' ἐπὶν ἐκτεθεῖσαν τούτων·

Ἡ καὶ κυανέησιν ἐπ' ὄφρ' αἰνεῖσε Κρονίων,
Ἄμβροσιν δ' ἄρα χαίται ἐπερρώσαντο ἄνακτος
Ἡ αὖτος ἀπ' ἀθανάτω, μέγαν δ' ἐλελίζεν Ὀλυμπων.

Ιλ. α.

others.

others. Men can be touched only by ideas which they are able readily to conceive; and they can conceive only those ideas, the members of which sense has already deposited in the memory. On this account we find it difficult to enter into manners very different from our own. The refinement to which we are accustomed in modern times, renders the simplicity of manners which Homer attributes to his heroes, an object of surprise. That simplicity of manners prevailed in his time, and prevented his contemporaries from affixing an idea of meanness to many actions and appearances in common life, from which he derives comparisons to illustrate the sublimest objects. But modern luxury has raised the polite into a sphere so distinct from what is termed low life, that we must put a sort of force upon our minds, in order to separate ideas of meanness from such things as can now occur only in a shepherd's cottage or a country village. Critics more delicate than judicious, are so entirely under the influence of this prejudice, that they stigmatise the passages of ancient authors which refer to customs very different from those of the present age.

MEMORY assists genius in another respect. To recollect instead of inventing, shows a defect of genius; but it were faulty to be so intent upon invention, as studiously to avoid recollection on all occasions. If we lose sight altogether of the beaten road of memory, we shall be in danger of missing our way in the winding paths of imagination. So bold an adventurer will come at last to regions inhabited only by monsters. It is not sufficient for rendering a production natural, that its separate parts be copied from real things; the order and connexions of the real things must likewise be in some measure imitated. If the parts of a work be put in a situation totally unlike to that which corresponding objects in nature possess, it will give the same kind of disgust as if the parts themselves had been perfectly fantastical. If a philosopher should deduce any phenomenon from a known cause, by a process opposite to what we have observed in similar cases, we would suspect for this very reason, that his explication were rather a whimsical hypothesis, than a legitimate investigation, and we would readily pronounce that his imagination might have been corrected by his memory, and led into a
much

much jufter train of thinking. If a number of events natural in themfelves, were combined in the action of a poem fo as to fucceed one another in an order and by relations perfectly diffimilar to every feries which history or our own obfervation had exhibited, we could not but be difgusted with this deviation from what memory informs us is the reality of things. The courfe of nature is fo fteddy and regular, that a certain analogy runs thro' all the parts of it. Whenever any feries of events is exhibited to the mind, memory recollects fome other part of the courfe of nature; and if the ordinary analogy be wanting, that feries is pronounced unnatural and improbable. On this account, even in cafes where the greateft latitude is allowed to invention, care muft be taken that the offspring of genius bear fome refemblance to the portrait of nature, which memory retains: and this refemblance cannot be produced unlefs memory is confulted while genius exerts itfelf, and this latter faculty in this manner vouchsafes to take its model from the former. This is the foundation of Horace's rule :

Ficta voluptatis caufa fint proxima veris :

Ne, quodcunque volet, pofcat fibi fabula credi (g).

(g) *Ars Poet.* v. 338.

In

In a word, Genius is often led to its inventions by a train of ideas suggested to it by a similar train which memory retains, and it is only the remembrance of the latter that enables judgment to determine concerning the justness of the former.

P A R T

P A R T II.

Of the general Sources of the Varieties of Genius.

GENIUS always arises from those principles of the human mind which we have pointed out; but it derives considerable diversities of form from the different modifications of these principles. Imagination being that faculty which is the immediate source of genius, we must search for the origin of the varieties of genius, chiefly in the several modifications of which imagination is susceptible. But because imagination is attended and assisted in all the exertions of genius, by other faculties, without the co-operation of which its effects would be extremely imperfect, some of the varieties of genius are no doubt partly owing to the peculiar force or modification of these other faculties. On this account, an examination of the different forms which all the powers combined in perfect genius assume, and of the different laws by which they are guided, will be necessary, in order to prepare us for an investigation of the different kinds of genius.

S E C T.

S E C T. I.

Of the Sources of the Varieties of Genius in the Imagination; particularly of the Qualities of Ideas which produce Association.

IT has been remarked already, that imagination produces genius chiefly by the tendency which it has to associate different perceptions, so that one of them being present, it may introduce others to our view without our being conscious of any design or our needing any effort to call them up. This tendency of imagination has been often taken notice of. Some late philosophers have observed that imagination does not act at random in associating ideas, and have, with considerable success, traced out the laws by which it is governed, or ascertained those qualities of ideas, and those relations subsisting between ideas, which fit them for being associated or for introducing each other into the mind (a). In examining this subject, so far as is necessary for unfolding the principles of genius, I shall not scrupulously avoid repeating what has

(a) See *Treatise on Human Nature*, vol. i. part 1. sect. 4. *Elements of Criticism*, chap. 1.

been observed by others; but shall endeavour to throw all that occurs, into that form which will be most subservient to the particular purpose which I have in view.

IN searching for the laws of association, it is natural to enquire, first, what are the qualities or relations of ideas themselves, which fit them for being associated; and next, whether there be any principles in the human constitution, which affect the association of ideas, so as to make some to unite more readily than others which yet are equally possessed of the associating qualities or relations.

AMONG those qualities or relations of ideas, which fit them for being associated, there is an obvious distinction: some of them are *simple*, others are *compounded*. The simple principles of association may be reduced to three, *resemblance*, *contrariety*, and *vicinity*.

PERCEPTIONS may resemble one another in different manners, and in very different degrees; but whenever they at all resemble, one of them being present to the mind, will naturally transport it to the conception of the other. When we look at a picture, we are naturally led by resemblance, to think of the person whom the picture represents. Perceiving

ceiving any individual, we naturally think of any other individual of the same species, with which we happen to be acquainted. The mention of any phenomenon or event, readily brings into our view another phenomenon or event similar in its cause, its nature, its circumstances, or its consequences. “It hath been observed, says Lord Verulam (*b*), by the ancients, that salt water will dissolve salt put into it, in less time than fresh water will dissolve it.—Try it with sugar put into water formerly sugared, and into other water unsugared.” Here one fact suggests an analogous or similar trial. Shakespear represents Northumberland as guided by this associating quality, when he saw Morton come in haste from the battle where his son had been engaged, pale, trembling, agitated, at a loss what to say; and represents him very naturally as led by this occasion to think of a like event :

Thou tremblest, and the whiteness in thy cheek
Is apter than thy tongue to tell thy errand.
Ev’n such a man, so faint, so spiritless,
So dull, so dead in look, so woe-be-gone,
Drew Priam’s curtain in the dead of night,
And would have told him half his Troy was burn’d;

(*b*) *Sylva Sylvarum*, Cent. 9. Exp. 83.

But Priam found the fire, ere he his tongue;
And I my Piercy's death, ere thou report'st it (c).

Any one quality or circumstance common to two perceptions, forms a resemblance between them, sufficient to connect them in the imagination: it is generally such an imperfect resemblance as this, that suggests similitudes and images (d).

CONTRARIETY is a word commonly used with considerable latitude. There are some perceptions which do not readily introduce their contraries: but in very many instances a perception does suggest another which is in some sense contrary to it; and therefore contrariety may justly be considered as a principle of association. "The sun-beams, says
" Verulam (e), do turn wine into vinegar;
" but Qu. Whether they would not sweeten
" verjuice?" In this case, one effect of the sun-beams leads him to conceive a contrary effect in a contrary subject. When light is perceived, it does not easily suggest the idea of darkness; but the perception of darkness very quickly suggests the idea of light. In

(c) Second part of *Henry IV.* act 1. scene 3.

(d) Non enim res tota toti rei necesse est similis sit, sed ad ipsum, ad quod conferetur, similitudinem habeat oportet. *Ad Hiren.* lib. iv.

(e) Inquisitio de Calore et Frigore.

health we are not ready to think of sickness; but sickness forcibly introduceth the idea of health. When we feel cold, we very naturally think of heat, and of the pleasure of those who enjoy it. When we are warm and comfortably lodged in a stormy night, it is not uncommon to reflect with pity on the opposite condition of those who are abroad: here however the association is assisted by, and is perhaps chiefly owing to the perception of the storm, suggesting ideas of its effects. Remarkable dangers or distresses in which a person has some time been involved, dwell on his imagination, and are brought into his view by every thing of an opposite nature, in his after situation. A person raised suddenly to prosperity, riches, or power, will sometimes find his former poverty, meanness, or obscurity forcing itself into his thoughts; and they will much oftner be suggested to spectators, by the view of his present elevation. A person fallen into adversity of any kind, will find himself still more strongly disposed to recollect the prosperity which preceded it; the imagination of a spectator also is naturally led to the thought of this. Old men oppressed with infirmities, and become incapable of enjoyment, naturally dwell on the strength,

the activity, and the pleasures of their youth. A monarch groaning under the cares of government, and kept awake by his disquietude, will readily think on the ease of the peasant, and reflect,

How many thousands of my poorest subjects
Are at this hour asleep !——(f)

The reflection is suggested by a twofold contrariety, that between the meanness of the subject and the elevation of the king, and that between the ease of the former and the restlessness of the latter. A person's disposition or conduct at one time, will put us in mind of a contrary disposition which he has possessed, or of a contrary conduct which he has pursued, at another time. Friendship between persons who have been reconciled, naturally puts us in mind of their former enmity. Enmity arising between old friends, suggests the idea of their intimacy in times past. Shakespear introduces King Henry as saying, when he heard of Northumberland's rebellion,

'Tis not ten years since Richard and Northum-
berland
Did feast together ; and in two years after

(f) Second Part of *Henry IV.* act 3. scene 1.

Were they at wars : it is but eight years since
 This Piercy was the man nearest my soul,
 Who like a brother toil'd in my affairs,
 And laid his love and life under my foot ;
 Yea, for my sake, ev'n to the eyes of Richard,
 Gave him defiance. ————— (g)

In like manner any species of behaviour in one person, will sometimes suggest contrary or very different conduct in another. Thus King Henry, on hearing the exploits of young Piercy, naturally says,

Yea there thou mak'st me sad, and mak'st me sin
 In envy that my Lord Northumberland
 Should be the father of so blest a son,
 A son who is the theme of honour's tongue,
 Amongst a grove the very straightest plant,
 Who is sweet fortune's minion and her pride ;
 Whilst I by looking on the praise of him,
 See riot and dishonour stain the brow
 Of my young Harry. ————— (b)

The same poet furnishes us with a complicated example of the influence of contrariety in suggesting ideas, in a passage of Clifford's speech to Henry VI. York's ambitious care of his son, suggests the King's faulty indifference about his son ; and this again suggests the care of brute creatures about their

(g) Second part of *Henry IV.* act 3. scene 2.

(b) First part of *Henry IV.* act 1. scene 1.

offspring, their irrational nature forming at the same time another contrast between them and a human being :

He but a Duke, would have his son a King,
 And raise his issue like a loving fire ;
 Thou being a King, blest with a goodly son,
 Did'st yield consent to disinherit him ;
 Which argued thee a most unloving father.
 Unreasonable creatures feed their young,
 And though man's face be fearful to their eyes,
 Yet in protection of their tender ones
 Who hath not seen them (even with those wings
 Which sometimes they have us'd with fearful
 flight)
 Make war with him who climb'd into their nest,
 Off'ring their own lives in their young's de-
 fence ? (i)

Here two birds using their wings for repelling danger, suggests to the poet the opposite purpose of flying from danger, for which they commonly employ them. Thus many perceptions naturally introduce such others as are in some sense contrary to them. Indeed so much does contrariety influence the train of our ideas, that a great part of common conversation, especially that of old men, consists in remarking the changes, vicissitudes,

(i) Third part of *Henry VI.* act 2. scene 3.

and reverses which they have had occasion to observe in persons and in things.

VICINITY is likewise a principle of association among ideas. The conception of any object naturally carries the thought to the idea of another object which was connected with it either in place or in time. Mention one house in a city, or one feat in a country with which we are acquainted, we naturally think and talk of others adjacent; and frequently when we are not acquainted with them, we even make an effort to imagine them. Bring us to a place where we have formerly been, or only speak of it, immediately ideas of persons whom we have seen, of conversations in which we have been engaged, of actions which we have done, or of scenes which we have witnessed, in that place or near it, croud into our mind.

Nemo libenter recolit, qui læsit locum (k).

If any event be mentioned, the mind very naturally sets out from it, and goes on recollecting a whole series of successive events. Nothing is more common than for an historian to introduce the relation of an event nowise related to his subject, with this observa-

(k) *PHÆDR.* lib. i. fab. 18.

tion, that it happened in the place or about the time of which he is writing. The proximity of circumstantial and involved story-tellers often arises wholly from this, that they crowd into their narration, a multitude of circumstances which have no connexion with the thread of it, but have happened to be contiguous in place or in time to some particular incidents, and are continually suggested to the speaker, by means of this relation. “A gentleman,” says one of the authors of the *Spectator*, “whom I had the honour to be in company with the other day, upon some occasion that he was pleased to take, said, he remembered a very pretty repartee made by a very witty man in King Charles’s time upon the like occasion. I remember, said he, much about the time of Oates’s plot, that a cousin-german and I were at the Bear in Holburn, —Jack Thomson was there,—I am sure it was spoken somewhere thereabouts, for we drank a bottle in that neighbourhood every evening (*l*).” The occasion of the story is suggested by means of resemblance; all the circumstances of the story which we have transcribed, are suggested only by vicinity.

(*l*) *SPECTATOR*, No. 138.

THERE are other qualities or relations of a compound nature, which fit ideas for being associated and for introducing one another. They are produced by the union of the simple relations already mentioned, with one another or with other circumstances. Such are *co-existence, the relation of cause and effect, and order.*

WHEN qualities are co-existent in any object, they are conceived by the mind as connected both in time and in place, and this connexion is regarded as constant and permanent. These relations of the parts have so great influence on the mind, and connect the ideas of the parts so strongly in the imagination, that we conceive them all with almost as great facility as we could conceive any one of them. On this account we bestow unity on the whole collection, and consider them all as making but one perception. We have so strong a propensity to this, that it costs us some trouble to analyse a complex perception into its parts; and indeed this is seldom attempted by the generality of mankind. A number of distinct perceptions being thus united, by co-existence, in the imagination, any one of them occurring to the mind, suggests the rest. If we smell any fruit at a distance,

tance, we immediately conceive its colour, shape, and taste. If we should find one wheel of a watch, or one part of a machine in a desert, it would call up the idea of the machine to which it belongs.

THE relation of cause and effect, which likewise fits ideas for being associated, is a compound relation : it includes conjunction in place, for the cause is always conceived as contiguous to its effect ; it includes conjunction in time, for the cause is always prior to the effect ; and the cause is always supposed to exert power or energy in producing the effect, or at least to have somehow a fitness to produce it, so that the effect has a dependence upon that cause (*m*). The conception of a cause naturally leads us to think of the effect ; and the conception of an effect as naturally conveys our thought to the idea of the cause. The sight of a wound leads us immediately to conceive both the pain which it occasions, and the weapon by which it was produced. Thinking of any person, we naturally recollect some action of which he was the author. Thinking of any transaction, we

(*m*) *Causa autem ea est, quæ id efficit, cujus est causa, ut vulnus, mortis ; cruditas, morbi ; ignis, ardoris. Itaque non sic causa intelligi debet, ut, quod cuique antecedit, id ei causa sit, sed quod cuique efficienter antecedit.* Cic. *de Fato.*

naturally recollect the persons who were concerned in it, and even reflect on other parts of their behaviour. The presence or the mention of the son of a friend, naturally introduces the idea of the father.

It was remarked formerly that in every work of genius, all the parts are connected with the design, and that the strength of that associating principle by which they are connected with it, produces *regularity* of imagination. We may now observe that this connexion which subsists between the parts and the design, and in general the connexion between all means and their end, is a species of the relation of cause and effect. Every part of a regular work, both in science and in the arts, either immediately promotes the design, or is subservient to some other part which promotes it. When a person has a distinct view, and a strong and steady perception of the design, it will lead him to conceive all the subordinate ends which must be attained in order to accomplish the main design, and which, in respect of it, are means or immediate causes. Each of these subordinate ends will suggest the means by which it may be effected, keeping the ultimate design at the same time constantly in view. Thus, by the associating

associating force of cause and effect, the whole out-lines of the work will be at once presented to the mind; and partly by means of this relation, and partly by means of other relations, they will introduce all the conceptions which are requisite for finishing it. Whatever conception is introduced, first the subordinate ends, and next, by their influence, the ultimate end will recur to the thought, and dispose us either to adopt the conception as suitable, or to reject it as unserviceable. When a person has a lively and constant view of the end of a work, it will produce an habitual sense that he is in search of means fit to promote that end, though perhaps he does not often explicitly reflect upon it. The sense of this will keep his imagination in a preparation and disposition for being peculiarly affected with the relation between the means and the end. In consequence of this, not only does the end suggest the natural means of promoting it, but moreover whatever idea almost occurs to the mind, the person has a tendency to view it on all sides, on purpose to see whether it can in any way contribute to that end, the perception of which dwells continually on his imagination. The effects of a strong association of the design,

were

were formerly pointed out; the observations now made, explain what this association of the design is, and how it is fitted for producing these effects.

ORDER evidently produces a strong connexion between ideas, and gives one great power to introduce others. It is a compounded relation which may take place either between the parts of the same thing or between different things. Order arises from things being united or placed together, according as they are more closely related. When the parts of a machine are properly combined, they have order; if they be either laid in a heap, or any of them misplaced, the order is destroyed. In a regular treatise on any subject, order is preserved through the whole; in a set of aphorisms there is no order. In the former case, one part very readily suggests the rest; in the latter, it is not so. It is this principle of order that gives the parts of any regular system a peculiar power to suggest ideas both of the other parts and of the whole. By means of it, the parts of an edifice have a stricter union in the imagination, than the parts of a heap of stones; the parts of a plant or of an animal body in their united state, are more closely associated than they

they would be if they were disunited and yet huddled into a narrower compass. By means of the same principle, an event will suggest another on which it had an influence, much more easily than one with which it had no connexion, though contemporary or immediately successive. We run with great facility over a train of perceptions in order; but if we neglect their order, the mind finds great difficulty in passing from one of them to the others.

ALL the relations of ideas, which fit them for being associated, are reducible to those that have been mentioned. We often imagine that some of these relations belong to ideas to which they do not belong: but in this case, as we are not sensible of our mistake, they produce, though they be merely imaginary, as strong association as if they had been real.

BEFORE we finish this part of the subject, it will not be improper to observe, That these several relations or qualities of ideas operate upon the imagination in an instinctive or mechanical way, that is, without our reflecting that they belong to the ideas. When one idea has suggested another, we discover on comparing them, that they do, for instance,

resemble each other : but it was not a previous perception of their resemblance that made the one to suggest the other ; it suggested it instinctively without our perceiving at the time, how or wherefore it suggested it. Hence, though association of all the kinds that have been mentioned, is natural to all men, yet every man is so far from knowing distinctly the qualities and relations of ideas which produce association, that the enumeration of them is but a recent discovery among philosophers themselves. Before two perceptions can be compared, they must be both present to the mind ; but except it happen that both are exhibited together by sense or memory, one of them becomes present to the mind only by its being suggested by the other, by means of some of the relations which subsist between them, operating mechanically on the imagination. In most cases indeed, the relations of the ideas have been often perceived ; and the oftener they have been attended to, and the more distinctly they are apprehended, the more strongly will the ideas be associated and the more readily will one of them suggest the other. Imaginary, groundless, and unnatural associations of ideas, always presuppose an opinion, though a false

opinion, somehow imbibed of their being related; but after this opinion is formed, the supposed connexion operates on the imagination, mechanically, and without our reflecting on its original foundation. In the same mechanical manner the real relations of ideas, even such as have been most frequently reflected upon, act on the imagination in suggesting one another; the previous comparisons of the ideas, and perceptions of their relations, are only causes which contribute to their acting with the greater force.

S E C T. II.

Of the Influence of Habit on Association.

WE shall next enquire, What other principles there are in the human constitution, which affect the association of ideas so as to make some to unite more readily than others, equally possessed of the associating qualities or relations just now enumerated. There are two principles of this kind, whose influence is very evident; *habit*, and *the passions*. Any present perception introduces such ideas related to it, as we have been accustomed to, and such as are congruous to
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the passion which influences us at the time, much more readily than others which are equally related to that perception. Both these principles not only affect in this manner the introduction of ideas which are associated by means of relations subsisting between them, but are likewise themselves distinct and separate causes of association: habit, or a present passion, often suggests trains of ideas which derive their connexion, not from their relation to one another, but chiefly from their congruity to the habit or the passion.

WHEN we consider habit as determining some related ideas to be more readily associated than others equally related, its effects are chiefly the three following.

FIRST, An idea which custom has rendered familiar to us, will be more easily introduced by any present perception, than another idea which is equally related to that perception, but which we are little accustomed to think upon. This effect of habit is very conspicuous, not only in common life, but likewise in all works of genius. It was remarked before, that persons in the habits of the modern religious orders are introduced into many pictures representing parts of the gospel history, and that a very little exercise
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of judgment would have directed the painter to reject this absurdity as soon as it came into his thoughts: but glaring as the absurdity is, it is by no means surprising that it should come into the thoughts of a popish painter. He is so much accustomed to see the religious of his church, and they are so invariably bearing a part in every action of a sacred nature, of which he can be a spectator, that habit can scarce fail to bring them into his view, whenever the subject of his work has any the slightest relation to them. There are some objects and appearances of objects in nature, open and obvious to the observation of all, and therefore rendered by custom familiar to all. These objects and appearances supply the similitudes and images which have been most early appropriated, and most frequently used by poets and orators. The reason is plain; because resemblance and habit united their force in suggesting them, they occurred more readily than images which were suggested by resemblance alone. When a writer abounds in images of this kind, and in them only, we are apt to pronounce without hesitation, that he is a mere imitator. But this judgment is too hasty: the same cause which has rendered these images trite and

and common, will always make a person of indifferent genius to run into them, even without imitation. Images from objects and appearances which are not very common, cannot be suggested to a person, except his imagination be lively, so that the associating principle of resemblance be vigorous enough to introduce them without any assistance from habit; and therefore a person who has a weak imagination, is almost necessarily confined to images taken from things whose familiarity has made them already occur to many. Thus the most common defect of genius in poets and orators, is a striking instance of the power which habit has to assist the operation of the associating qualities of ideas. Its power is likewise evident in authors and artists of the greatest genius. A painter of real genius will always represent, and a poet of real genius will always draw his images from that state and face of nature which occurs in the places he is acquainted with, and those objects and appearances which he himself has had occasion to observe; and by this means he often distinguishes himself from imitators, who not having genius sufficient for observing the great original, Nature, the real appearances of things exhibited to themselves, describe
them

them as they have been already described by others in situations totally different. But in these imitators too, the force of custom in facilitating the introduction of ideas, is observable : they have often attended to the descriptions of others, they have seldom been struck with the originals in Nature ; by this means the representations of others are more familiar to them than any images of their own ; and that is the reason why they more readily occur to them.

WHEN a person is intent on a particular study, or meditating any work of genius, when in consequence of this his thoughts customarily dwell upon it, every thing that occurs to him in reading, in conversation or in life, immediately brings his present work or study into his view, and sets him on thinking, whether, and in what manner, it may be accommodated to that work or study, and rendered useful in them. Had the same thing occurred to a person engaged in a different pursuit, it would have led him, by the same principle, to apply it to a quite different purpose. The example that was last produced, suggests an illustration of this remark. An ingenious modern critic being employed in ascertaining the marks of imitation, took no-

tice that some of the English poets describe the Spring, not as they have observed it in their own climate, but as they have been accustomed to see it described by the poets of warmer regions, who painted what they really experienced: this, in conformity to the design which occupied his thoughts, suggested to him one mark of imitation, "That where the local peculiarities of Nature are to be described, there an exact conformity of the matter will evince an imitation (a)." The writer of this essay finding this observation in that ingenious critic, it occurred to him, that it might be applied in both its parts, for exemplifying the force of custom in promoting the introduction of ideas connected by some of the associating qualities. To a third person it might have suggested something totally different, but suitable to the particular purpose which happened to be most familiar to him at the time.

EVERY profession or way of life renders a correspondent set of ideas familiar to a person; and in consequence of this, the same object frequently leads different persons into totally different tracks of thinking. A plant which suggests an image or description to a

(a) HURD'S *Letter to Mr. Mason, on the Marks of Imitation.*
poet,

poet, will engage the botanist in determining to what class it belongs, the chemist in thinking of the process by which it may be analysed, and the physician in considering its virtues as a medicine. The view of the heavens in a fine evening will lead the thoughts of the astronomer to the system of the universe, will make the painter conceive a landscape, will supply the poet with noble imagery, and engage the divine in a train of religious meditation. Mention an event or tell a story in a mixt company, it will suggest to, perhaps, every individual of the company, different thoughts or reflections; but what it suggests to each, will generally be something which his own habitual course of life or a present accident renders familiar to him. Tell the news of a battle, or speak of a person who has fallen in it; the ladies express their sympathy with the wives or mothers of the slain; the merchant takes notice in what manner trade is affected by the war; the soldier speaks of the glory of dying in the field, or relates his own campaigns, exploits, and wounds; the politician instructs the company concerning the origin of the war, the motives to it, and the advantages or the losses to be derived from it; the scholar recollects

some battle rendered famous by classical description, or traces the revolutions in the art of war; and if there be a poet in the circle, he will perhaps, inattentive to all that passes, be employed in forming silently a lively conception of the scene.

IN all these instances it is plain that custom gives great assistance to any of the associating qualities with which it happens to co-operate, and makes them introduce an idea that is familiar to us rather than another less familiar, though to this latter these qualities equally belong. Conceptions to which we are not accustomed, are shy to enter into the mind; it requires a sort of force to bring them into view; they must have a very strong relation to the present perception before it be able to introduce them. But custom gives the ideas which it has rendered familiar, a tendency to occur; they stand ready, as it were, to enter on the slightest occasion; we have a strong propensity to think of them; any relation to the present object of thought, however weak, will be sufficient to introduce them; and a strong relation to it, will suggest them with the greatest ease and quickness. The disposition of our mind towards familiar ideas, is thus analogous to our inclination towards our acquaintance;

acquaintance; it is with a sort of reluctance, or not without some ceremony, that we go into the company of strangers; but we need small inducement to seek the company of an old friend; we enter into it with perfect ease, may cannot without difficulty be restrained from entering into it.

SECONDLY, custom renders us more apt to be affected with one of the associating qualities than with others. We shall have occasion to observe afterwards, that by the original constitution of nature, the imagination is often more apt to be affected with one of the associating qualities than with the rest. This natural propensity may give occasion to a habit of following chiefly one of them. But though the mind were by nature equally open to the influence of all the associating qualities, yet various accidents may lead a person to be influenced for a considerable time together, by one associating quality only, or by one much oftener than by others. Whenever this happens, a habit will be acquired of passing from one perception to another, by means chiefly of that associating quality; and that habit once formed, will produce a propensity to continue still to trace perceptions principally by that particular quality, or will

add strength to the propensity which was derived from nature. This observation might be confirmed by a multitude of instances. Let a person who has been much accustomed to mathematical studies, write on the most dissimilar subjects, he not only throws his treatise as much as possible into the mathematical form, but is disposed to seek for and conceive relations between his ideas, resembling the mathematical relations. It was perhaps the habit of attending to the mathematical sciences, that disposed Dr. Clark to explain the foundation of morals, in the manner in which he has explained it, to place it in fitness or congruity, and to deduce that congruity from abstract relations, instead of referring it to the constitution of man, or to the moral nature of God. If a person has confined his reading for a considerable time to the works of poets, he will find a disposition, especially if his own stile be not yet perfectly formed, to write on every subject in a figurative and poetical manner. In general, a person's manner of writing is formed in a great degree, by the manner of those authors whom he has been most accustomed to study: he pursues his thoughts in the same paths, disposes them by means of similar relations, and

even

even arranges his expressions, without reflection, upon the same principles. This observation is equally applicable to painters, and artists of every kind.

BUT we need not multiply examples of the power of custom in disposing us to follow one associating quality in preference to others; for many of those which we have produced under the former head, are apposite to our present purpose. It is not only the familiarity of the ideas which are suitable to our situation and manner of life, that renders them fit to be associated with any present perception, but also their being connected with that perception by a relation which our situation or manner of life has made familiar, and given us a habit of being affected by. When the same object suggests different ideas to different persons, these ideas are sometimes connected with that object by the same relation; but generally they are connected with it by different relations, and the idea suggested to a particular person, is such as bears that relation to the present object, which he is by habit or otherwise most prone to follow. By bestowing a very small degree of attention, this may be observed in almost all the examples already given of the force of custom in facilitating the

introduction of familiar ideas: I shall point it out only in one of them. The same plant, it was remarked, may suggest different ideas to persons of different professions: it is by resemblance that it suggests an image to the poet, and resemblance is the relation by which he is most accustomed to be affected; it is by the relation of cause and effect that it suggests the consideration of its elements to the chemist, and of its virtues to the physician, and that is the relation which their studies render most familiar to them.

THUS, if nature has given a person a peculiar proneness to follow some one of the associating relations, the impulse of nature will gradually produce an habit of following that relation most frequently; and as soon as that habit is produced, it will strengthen the natural proneness: or if such a habit be produced by accidental causes, it will of itself, without any assistance from the natural constitution of the mind, beget a suitable propensity. Relations which we are accustomed to follow in the train of our thoughts, are like roads with which we are acquainted, and in which we therefore pursue a journey without any concern, hesitation, or deviation.

IT will not perhaps be superfluous to remark farther, that it is not only long custom which produces this effect : the shortest custom, such as cannot with propriety be said to amount to a habit, is sufficient. When a person has been occasionally, for ever so short a time, affected by one associating quality, he acquires a propensity to continue to be affected by that quality. When one has been anyhow led to use several images or similitudes in a composition, he is prone for some time to run into the same figures. A metaphor once employed, gives a person a disposition to pursue it, by means of which it is sometimes so long continued as to produce an allegory. A few contrasts or antitheses naturally and of course lead an author into more. An example formerly produced of association by means of contrariety (*b*), affords a plain proof of the influence of a very transient custom.

THIRDLY, Custom not only renders one associating quality more ready to affect us, than other qualities ; it likewise renders the same quality readier to operate on the imagination after one particular manner than after another manner. We shall hereafter have

(*b*) The example from Clifford's speech to Henry VI.
p. 115,

occasion to examine the different forms which the same associating quality assumes, or the different ways in which it operates in introducing ideas. In general, it is evident that there are very different forms or species of each of the associating qualities; for instance, things *resemble* one another in many different ways. Now one sort of resemblance may be a powerful principle of association, to a particular person on whom other sorts of resemblance have very little influence; and the propensity of that person to be affected chiefly by this one sort, often proceeds, at least in part, from his having acquired a habit of being affected by it. An example formerly made use of, may be applied for the illustration of this. A plant suggests an image to a poet, and leads a botanist to think of the class to which it belongs; it operates on the imaginations of both, by *resemblance*; on the poet, by the resemblance of its general appearance, or of some of its particular qualities, to a distant subject; on the botanist, by the exact resemblance of its parts to individuals of the same kind. But these two sorts of resemblance are almost as different from one another as resemblance is from vicinity: no two turns of imagination are more unlike than

than that of the poet and that of the natural historian. Both are in this instance affected by the resemblance which the idea suggested bears to the present object; but the one of them is in no degree affected by the particular species of resemblance which affects the other. Every one almost of the associating qualities is capable of as great variety as resemblance. Now as a person may derive from nature, a propensity to be influenced by any of the associating qualities in one particular way rather than in another way, so by his being accustomed to be thus influenced, that propensity will be increased. After the observations which have been already made, little needs to be said for confirmation of this. It is as easy to conceive how a person may acquire a habit of being affected by an associating quality in one particular manner, as to conceive how he may acquire a habit of being affected by one quality more than by others: and when it has been proved that in the latter case the habit begets a facility in tracing ideas by that one quality to which a person has been accustomed, it will easily be allowed that the habit must have equal force in disposing us to a particular mode of association by any quality. To recur to a former instance,

flance, there can be no doubt that it is partly by their customary studies, as well as by the natural turn of their imaginations, that the poet and the botanist are led by the plant presented to them, to ideas connected with it by very different sorts of resemblance; and that the chemist and the physician, though both influenced by the relation of cause and effect, are yet influenced by very different species of that relation, and led, one to think of the elements of which the plant is composed, and the other to trace its effects on animal bodies. Both in similitude and in metaphor, the image is connected with the subject by resemblance; but a person may be rendered by custom readier to express himself in one of these figures than in the other.

It is a necessary consequence of these effects of habit, that it frequently opposes and overbalances the influence of the associating qualities. A perception is present to the mind; one idea is very strongly connected with it by resemblance, or by some other relation; another idea is weakly related to it, but is either familiar to us, or is related by a tie or a modification of a tie which we have been much accustomed to follow: the relations of ideas would introduce the former, but custom often

often overpowers them, and gains the preference to the latter. Custom sometimes cooperates with relations; and in that case it augments their force: but sometimes it counteracts them; and whenever it does so, it weakens or totally destroys their influence. By this means the mind is often prevented from pursuing a train of thought through the strongest connexions, as it naturally would if it were not influenced by habit. This is the cause of many transitions in authors and in conversation, which appear unnatural, and are unaccountable to those who have not the same habits.

HITHERTO we have supposed the perceptions which introduce one another, to be really related by some of the associating qualities formerly enumerated, and have shewn how habit assists or obstructs the operation of these qualities, or in what ways it affects the succession of perceptions. But custom will likewise produce an union between perceptions which are not otherwise related. Though two perceptions have no natural bond of union, yet if they have happened to be presented often together, one of them can scarce ever appear afterwards without introducing the other. In this case, as the connexion arises
wholly

wholly from the force of habit, so the degree of that connexion is in proportion to the strength of the habit, or to the number of instances in which the perceptions have occurred together. Many examples of the power of custom to beget an association of ideas, have been often taken notice of: but though there were no other, language alone would be a sufficient proof of this. The words of any language have no natural connexion with the perceptions which they express. They owe their signification wholly to compact: yet by custom they acquire so firm a connexion with sentiments, that no sooner is a word in a known language pronounced, than it excites the idea which it has been used for expressing, and no sooner does a thought start up in the mind, than it suggests a word correspondent to it. Custom has bestowed upon them an indissoluble connexion; and the most ignorant scarce imagine that they have any connexion except that which custom has bestowed. In language we perceive likewise, that the strength of the association is in proportion to the strength of the habit. If a person be but imperfectly accustomed to a language, or have been long without the habit of using it, the words of that language, though
he

he be acquainted with them, do not, by being pronounced, suggest so quickly the ideas signified by them, nor are themselves so readily suggested, when he wants to express his own sentiments, as the words of a language to which he has been much and constantly accustomed. A person for some time speaks with hesitation, and understands with difficulty a foreign language, though he knows the words that are employed ; but he speaks his mother-tongue readily, and understands it with ease (c). There is scarce any person but has some favourite words and phrases, which continually occur both in his conversation and

(c) The connexion established by custom, between ideas and the words of a language, being mutual, it may perhaps be thought, that the ideas should suggest the words, and the words the ideas, with equal quickness and ease. But this is not the case. The transition from the words to the ideas, is generally much easier than that from the ideas to the words. A person who is learning a strange language, will be able to understand a book or a conversation in that language long before he can write or speak it. Even in one's native tongue, one can readily understand what is written or spoken in the best and properest terms, though he could not have used these terms for expressing the same ideas ; and many write or speak with difficulty and hesitation, who understand what they read or hear, with perfect ease. This proceeds from the first principle which we have established concerning the influence of custom upon association, and is a new instance for confirming and illustrating that principle. The ideas are more *familiar* to us than the words ; they are often raised by their proper objects, or suggested by other words ; they often make their appearance in the mind, and are applied to various purposes, when the names of them are not thought upon ; and their *familiarity* makes them to be suggested readily. That this is the true cause, is confirmed by observing that where it does not take

in his writings, though there be many others in the language, equally fit for expressing the same thought. The former having by some means or other been frequently used by him, and on that account become familiar to him, rush into his mind of their own accord, whenever the idea to which they correspond, is present. But if at any time, disgusted with the frequency of these terms, he be desirous of diversifying his style, it requires some time and studied efforts to recollect the synonymous terms that are less familiar to him, though he knows them perfectly well. They are but weakly connected by custom with his ideas, and therefore they come not quickly into his mind. Thus habit not only assists the associating qualities in introducing ideas, but likewise itself unites ideas to which none of the associating qualities belong.

WE may farther remark an effect of habit on the imagination, different from both these. If a person has accustomed himself to any particular object or action while he was employed in pursuing a train of ideas, that ob-

place, ideas are not suggested more readily than words are in ordinary cases. When the ideas expressed are such as we have been little accustomed to attend to, a discourse or composition is understood by us with difficulty, as well as when ideas are expressed by unusual words: they are not familiar to us, and therefore are not readily suggested.

ject

ject or action becomes absolutely necessary for his pursuing any train. Without it, ideas, though connected by relations as strong as possible, cannot introduce one another; by means of it, they are readily suggested: yet the accustomed object or action has no more connexion with any one train than with any other, nor seems capable of either assisting the relations which already unite the ideas, or bestowing any new relation upon them. A person may by custom become unable to think or discourse of a subject, without keeping his eye fixt in a particular direction, or indulging himself in some usual posture or motion. Deprive some persons of a snuff-box, immediately fancy is extinguished, and a regular or fluent succession of ideas can no longer take place. “I sat by an eminent story-teller
“ and politician,” says an ingenious writer;
“ I observed this gentleman t’other day in
“ the midst of a story diverted from it by
“ looking at something at a distance, and I
“ softly hid his box. But he returns to his
“ tale, and looking for his box, he cries, *and*
“ *so, Sir*—Then when he should have taken
“ a pinch, *as I was saying*, says he,—*Has no*
“ *body seen my box?* His friend beseeches him
“ to finish his narration: then he proceeds,

“ and so, Sir,—Where can my box be? Then
 “ turning to me; Pray, Sir, did you see my
 “ box? Yes, Sir, said I, I took it to see how
 “ long you could live without it. He resumes
 “ his tale, and I took notice that his dulness
 “ was much more regular and fluent than
 “ before (d).” “ I remember,” says Mr.
 Addison, “ when I was a young man, and
 “ used to frequent Westminster-hall, there
 “ was a counsellor who never pleaded with-
 “ out a piece of pack-thread in his hand,
 “ which he used to twist about a thumb or a
 “ finger, all the while he was speaking: the
 “ wags of those days used to call it the thread
 “ of his discourse, for he was not able to utter
 “ a word without it. One of his clients, who
 “ was more merry than wise, stole it from
 “ him one day in the midst of his pleading;
 “ but he had better have let it alone, for he
 “ lost his cause by his jest (e).” The effect
 of habit in these instances is very strange and
 unaccountable. The custom has no greater
 fitness for introducing any one set of ideas
 than any other; the particular ideas which are
 introduced, have no sort of connexion with the
 circumstance which custom has rendered ne-

(d) TATLER, No. 35. *

(e) SPECTATOR, No. 407.

cessary for their introduction, and perhaps have never formerly been conjoined with it; it seems to contribute to their introduction only by preventing an uneasiness which would indispose the mind for exerting its faculties.

S E C T. III.

Of the Influence of the Passions on Association.

THE other principle in human nature, which has an influence on the association of ideas, which either promotes the introduction of such as are linked together by some of the associating qualities, or introduces ideas unconnected with each other, merely by means of their relation to itself, is a present passion.

A PASSION in strict propriety means only such an emotion as is produced by some one particular cause, and directed to some one determinate object. There are several emotions, as remorse, self-approbation, and the like, which may perhaps be reckoned sensations rather than passions: but our present design does not render it necessary to attend to that distinction. A passion is something different from an habitual temper or turn of mind: the

latter may in some instances have derived its origin from the frequent returns or the long continuance of a particular passion; but once formed, it subsists without the operation of any particular cause, and without being fixt on any precise object, and produces a permanent propensity to any sentiments or passions which are congruous to it. But a passion and an habitual temper have so many things in common, that we may without any inconvenience include both in the cause of association which we are now examining: it will be sufficient to distinguish them in particular instances, when such shall happen to occur, in which their influence on the introduction of ideas is different, or in which they run counter to one another.

In general, that the train of ideas suggested to the mind, has a very great dependence on the passions, is obvious. Mention some actions of a person whom we love; our love will suggest such circumstances as tend to make us approve these actions. Mention the very same actions to another who entertains resentment against the person who did them; and his imagination will immediately clothe them with such circumstances as destroy their merit, or render them blameable. Let us barely
think

think of any person : if we love him, we readily recollect and dwell upon the fair and worthy parts of his character ; if we hate him, his wrong or suspicious actions crowd into our thoughts. The joyful heart runs easily into a gay and pleasant train of thinking, but does not naturally recollect any thing that is gloomy, and instantly rejects it if it be suggested by peculiar causes. The observation holds of every emotion, passion, and disposition.

It will be proper, however, to attempt a fuller explication of the manner in which the passions influence the association of ideas. To understand this, is of great importance in a theory of the varieties of genius ; for to give a just representation of the passions, is one of the greatest efforts of genius ; and it can be accomplished only by following those paths into which the passions naturally direct the thoughts. But the influence of the passions on the succession of our ideas, though thus important, relates only to one species of genius, genius for the *arts*. It would therefore be improper to enter on a full discussion of it at present, when we are tracing out the *general* sources of the varieties of genius. In the observations which we are now to make on

this subject, some examples will be necessary both for illustrating and for confirming our principles. It may perhaps be thought most proper to draw these from our own experience in real life. But to be able to select examples from real life, and to set them in a striking light, would require no small degree of one of the highest and rarest kinds of poetical genius. It will therefore be both the safest and the best way, to take our examples from such representations of the passions in poetry, as are confessedly natural, and will approve themselves natural to the taste of the reader. Such examples have as great authority as instances which a person himself observes in ordinary life. Shakespear alone will almost supply us with as many as are necessary.

IN taking a general view of the influence of the passions on association, it will be necessary, first, to point out the manner in which they affect the *nature* of the ideas selected and introduced.

THERE are some ideas intimately connected with a passion, as the object of the passion, its cause, what is fit for supporting it, or what gratifies it. Every passion has a strong tendency to suggest such ideas, to force them into our view, to make us prone to conceive them.

them. We naturally continue fixt in attention to such ideas, or recur often to the contemplation of them. A passion leads us to them, solely by its own force, without any assistance from a present perception connected with them. When a person is under the influence of any passion, the difficulty is not to recollect the objects closely connected with it, but to prevent their haunting him continually. An angry man, for example, can scarce avoid thinking of the person who has offended him, and of the injury which he has done him, recollecting every thing he can dishonourable to that person, remembering with pleasure the misfortunes which have happened to him, even imagining distresses into which he may fall, and in a word dwelling on the conception of every thing immediately relating to his anger. Angelo's description of his own disposition when he was under the power of love, is perfectly natural;

When I would pray and think, I think and pray
To severl subjects: heav'n hath my empty words,
Whilst my intention hearing not my tongue,
Anchors on Isabel: heav'n's in my mouth,
As if I did but only chew its name,
And in my heart the strong and swelling evil
Of my conception. ———(a)

(a) *Measure for Measure*, act 2. scene 10.

DIFFERENT ideas are in different ways closely connected with the same passion ; the passion tends to introduce all these. On this account it often happens that the mind does not rest on any one of them, but conceives them all by turns. Every passion often occasions an abruptness of thought ; this is one cause of that abruptness ; different ideas being connected with the passion, in different respects, but with almost equal closeness, the passion introduces them all, or several of them at least, in alternate succession. Sebastian overwhelmed with fear and grief by the prospect of immediate shipwreck, exclaims,

———Mercy on us !

We split, we split ! farewell my wife and children,
Brother farewell ! we split, we split, we split ! (b)

His passion leads him to think of himself, its most immediate object ; but without suffering him to rest a moment on this, it hurries him on to a conception of the cause of his passion, the splitting of the ship ; it allows him to make but a very short stop here ; it causes his family and friends, objects which were likewise nearly related to his grief, to crowd into his view ; and from these, it forces him back to the thought of the immediate cause of his passion,

(b) *Tempest*, act 1. scene 1.

and

and makes his mind to dwell upon it. It suffers him not to think of any thing that has not an intimate relation to itself, and it makes his imagination to vibrate between those which have such relation. Isabel being informed that her brother had been put to death by Angelo's command, her resentment immediately suggests some means of revenging his death; but without suffering her to rest on these means, or to take any notice of the impossibility of her employing them, even though it is mentioned to her, resentment brings into her thoughts in an instant, her brother, herself, the wickedness of mankind, and the baseness of Angelo, all objects naturally connected with her passion:

Isab. Oh, I will to him and pluck out his eyes.

Duke. You shall not be admitted to his sight.

Isab. Unhappy Claudio! wretched Isabel!

Injurious world! most damned Angelo!-(c)

IF a passion can thus introduce ideas suitable to it, merely by its own force, it will much more introduce them when there happens to be a perception present to the mind, to which they bear any of the associating relations. Either the passion alone, or that relation alone would have been sufficient for the effect:

(c) *Measure for Measure*, act 4. scene 10.

when

when both therefore operate together, they are like mechanical forces acting in the same direction, which produce a double effect, or produce the same effect with half the difficulty. When any passion prevails in the soul, ideas strictly connected with that passion are in a continual readiness to rush into the thoughts on every the slightest occasion. Hence it is commonly observed that the most distant hint is sufficient to direct the imagination to an object which is congruous to the present disposition of the mind. We have a very natural and strong representation of this in Lear's grief and indignation on account of the unkindness of his daughters. When he sees Edgar's dismal situation, he says,

“ Did'st thou give all to thy daughters? and art thou come to this?”

On hearing his raving, the same thought again rushes into Lear's mind,

“ What! have his daughters brought him to this pass? Couldst thou save nothing? Did'st thou give 'em all?”

The fool's interruption could not divert the thought; he goes on,

Now all the plagues that in the pendulous air
Hang fated o'er men's faults, light on thy
daughters!

“ He

“ He hath no daughters, Sir,”

says Kent: but still the object before him, keeps the same idea rivetted in his imagination;

Death, traitor, nothing could have subdu'd nature
To such a lowness, but his unkind daughters.

Is it the fashion, that discarded fathers

Should have thus little mercy on their flesh?

Judicious punishment! 'Twas this flesh begot

Those pelican daughters.—— (d)

There are ordinarily many occasions which have a powerful tendency to suggest to a person possessed by a passion, objects altogether unrelated to that passion: the mind is always disposed to reject these, and in consequence of this, it pursues one of two courses. Sometimes it takes a handle from the objects that occur, whatever they be, to recollect something suitable to the present passion, it imagines those objects related to this passion, though their analogy to it be very remote, as in the example just now given, nay tho' they have not even a shadow of connexion with it. Harpagon going out of his garden in quest of the officers of justice, after he had missed his casket of money, and seeing the

(d) *King Lear*, act 3, scene 6.

people

people in the street, is naturally made to say;

“What a croud’s here got together! I can cast my eyes on no body who gives me not suspicion, every thing seems my thief. Heh! what are they talking of there? Of him that robbed me? What noise is that above? Is it my thief that’s there? For heaven’s sake, if you know tidings of my thief, I beseech you tell me. Is he not hid there amongst you? They all stare at me, and fall a laughing. You’ll see that they are certainly concerned in this robbery committed upon me. Here, quick, commissaries, archers, provosts, judges, racks, gibbets, and executioners (e).”

This happens when the passion is violent, and when the tendency of the present objects to suggest ideas unsuitable to it, is not very strong. But when the passion is not so vio-

(e) Que de gens assemblés! Je ne jette mes regards sur personne qui ne me donne des soupçons, et tout me semble mon voleur. Eh! de quoi est-ce qu’on parle là? de celui qui m’a dérobé? Quel bruit fait-on la haut? Est-ce mon voleur qui est? De grace, si l’on fait des nouvelles de mon voleur, je supplie que l’on m’en dise. N’est-il point caché là parmi vous? Ils me regardent tous, et se mettent à rire. Vous verrez qu’ils ont part sans doute au vol que l’on m’a fait. Allons vite, des commissaires, des archers, des prévôts, des juges, des gênes, des potences, et des bourreaux. *L’Avaro*
DE MOLIERE, act 4. scene 7.

lent,

lent, or when it is an habitual disposition that prevails in the soul, and when at the same time the present objects have a strong tendency to lead the thoughts to ideas unrelated to that passion or disposition, the mind takes a different course: it goes backward and forward between the ideas suggested by the passion, and the ideas suggested by the present objects; there is a constant struggle between these, and a quick and frequent variation of thought. This is another cause of abruptness and unconnectedness in the sentiments of a person under the power of any passion; his mind vibrates between conceptions suitable to his passion and dissimilar conceptions arising from different circumstances in his situation. Moliere has represented this strongly in Harpagon; however he is engaged, his avarice makes the thought of the money which he had hid in his garden, to intermix itself with his present employment.

THOSE objects which are closely connected with any passion, are likewise connected by some of the associating qualities with other objects, which therefore they have a natural tendency to suggest. Now as it appears from what has been said, that every passion exerts itself in confining our thoughts to the objects
imme-

immediately connected with it, it would seem to follow, that a passion must hinder these from suggesting any other objects, however nearly related to themselves, and thus to put a stop to all succession of ideas. It has plainly a tendency to this; and the tendency takes effect in some degree. A passion never fails to confine our attention very much to the ideas which are most immediately related to itself. But such is the constitution of the human mind, that it cannot confine its attention altogether to one unvaried object for any considerable time. The passions being opposed by this law of our constitution, cannot keep the mind long fixt on one view of the object which it has first suggested. Yet it endeavours to do so; and the first effect of the endeavour is, that the mind averse from quitting that object, turns it to every side, and views it in various lights. In the following example, this effect appears very strikingly with respect to the passion of love:

Ros. Orlando!

Cel. Orlando.

Ros. Alas the day, what shall I do with my doublet and hose? what did he when thou sawest him? what said he? how looked he? wherein went he? what makes him

here? did he ask for me? where remains he? how parted he with thee? and when shalt thou see him again? Answer me in one word.

Cel. You must borrow me Garagantua's mouth first; 'tis a word too great for any mouth of this age's size: to say ay and no to these particulars, is more than to answer in a catechism.

Ros. But doth he know that I am in the forest, and in man's apparel? looks he as freshly as he did the day he wrestled?

Cel. It is as easy to count atoms as to resolve the propositions of a lover (*f*).

We have already discovered two sources of the abruptness of thought occasioned by passion; and we may now perceive another source of it. Different views of the same object are very unlike; a passion brings these different views before the mind, in a rapid succession and in an irregular groue.

IN this way the passion prevents a change of object for some time. But the different views of the same object are not inexhaustible. The passion therefore yielding to the impulse of our constitution, allows the present object

(*f*) *As you like it*, act 3. scene 6.

to suggest ideas related to it. Hence it arises that, under the influence of any passion, we conceive not only the objects which are intimately related to it, but also such others as are strongly connected with these by any of the associating qualities. The former objects would suggest these latter, if we were not under the influence of any passion, these therefore will occur more readily than any others, when, notwithstanding the influence of the passion, we must have some ideas on which to employ our thoughts. Besides, an idea connected with objects closely related to a passion, may by its presence gratify the passion, or support it, or fall in with it in other ways; and in this case such an idea is often suggested even when the mind is under no necessity of being relieved from a conception which has long occupied it. The Countess of Roussillon parting with her son Bertram, who is going to the army, the grief which this produces, suggests to them both, an event related by resemblance, and in some measure also by causation, to the occasion of that grief; the loss of her husband and his father:

Countess. In delivering up my son from me,
I bury a second husband.

Bertr. And in going, Madam; I weep o'er my father's death anew (g).

The mother does not say, the delivering up of my son reminds me of my burying my husband; she expresses it much more strongly; the son speaks in a manner equally forcible, the imagination of both converts the present event into the similar event suggested by it. This figure is felt by every person to be perfectly natural and proper; and its being so, shows that, when an object strictly connected with a passion introduces another object associated with itself, the passion impells the mind to conceive this other object very strongly, and to bestow upon it as intimate a relation to the passion, as possible.

BUT though a passion does not hinder an object from suggesting others, it has a great influence on the nature of the ideas suggested. An object which has been brought into view immediately by a passion, may be related, by one or other of the associating qualities, to a great multitude of ideas of very different kinds: but it will not in this case introduce any of these indiscriminately; the passion which brought itself into view, will direct it to introduce such of these only as are suitable

(g) *All's well that ends well*, act 1. scene 1.

to that passion. The perception present to the mind, considered simply in itself, has an equal fitness to bring into view any one of a hundred ideas; but itself was introduced by a passion which still continues to exert its power, and indisposes the mind for thinking on any thing unsuitable to it, and which thus diverts the associating force of the present perception from the direction it might have otherwise taken, and leads the imagination to select and take notice of only such ideas as are suitable to the passion, as well as to the present perception, overlooking many others which are equally connected with the latter. The associating forces of these two, have some similitude to compound powers in mechanics, which by their joint action produce motion in a direction different from that in which either acts, and lying between the separate directions of the two. Or, to set the matter in a different light, those ideas which are not only associated with the present perception, but also suitable to the passion that introduced it, are dragged into the mind by a double force; whereas the present perception alone tends to draw in other ideas associated with it, and the passion opposes their entrance, often with superior strength. The
latter

latter cannot therefore fail to be neglected ; the former must be introduced in preference to them. Thus, though a passion allows an object immediately connected with it, to introduce ideas, yet it always moulds those which are introduced, into its own likeness, or into a form agreeable to itself, and it suffers none to enter which are not susceptible of this form. When Alonzo's companions are endeavouring to alleviate his grief for the supposed loss of his son, by diverting his thoughts to his daughter's marriage with the King of Tunis, in their return from which they now suffered shipwreck, he answers them,

You cram these words into mine ears against
 The stomach of my sense. Would I had never
 Married my daughter there ! for coming thence
 My son is lost, and, in my rate, she too,
 Who is so far from Italy remov'd,
 I ne'er again shall see her : O thou mine heir
 Of Naples and of Milan, what strange fish
 Hath made his meal on thee ? (b)

This example illustrates and confirms almost every observation we have had occasion to make concerning the influence of the passions upon association. His grief keeps his attention fixt on the loss of his son, an object im-

(b) *Tempest*, act 2. scene 1.

mediately connected with it as being its cause, and that in spite of every thought by which his companions endeavoured to divert it. This object suggests an idea related to it by causation, his daughter's marriage at Tunis, the event which occasioned that loss. This event carries his thoughts back again to the death of his son ; which, when thus again presented to his imagination, suggests a second time his daughter's marriage, by means of its resemblance to it in one particular, that her distance deprived him of all intercourse with her, as much as if she too had been dead. But sorrow for his son allows him not to rest long upon this thought, suitable as it is to his passion, or to pursue any others which this might have introduced ; it makes his imagination instantly to recur to the loss of his son, to view it in every light, to conceive many circumstances relating to him, his being his heir, his being entitled to large dominions, his being devoured by fishes. This example is thus a new illustration of the principles formerly explained, That a passion tends to fix the view on objects intimately connected with it, or to make it often recur to them, not only on the slightest hint, but even without any occasion, and that these
objects

objects suggest ideas related to them. It is likewise a direct illustration of the principle now under consideration, and for the sake of which we have cited it. It is a striking instance of the power of a passion to enable a perception connected with it, to introduce not indiscriminately any ideas related to itself, but only such as are at the same time suitable to the nature of the passion. No ideas are conceived, but such as are perfectly suitable to Alonzo's sorrow. Claribel's marriage was in itself fully as fit for suggesting ideas of the mirth or pomp which attended it, or of the circumstances which rendered it desirable, and moved Alonzo to urge it, as for suggesting ideas of its disagreeable circumstances and consequences. It had actually suggested ideas of the former kind to the rest of the company; but Alonzo's sorrow hinders them from occurring to him, and forces into his view such thoughts as are unpleasant, and excite regret.

FURTHER, a passion has an influence on the *number*, as well as on the nature of the ideas introduced. It tends so strongly to keep the attention fixt on the objects strictly connected with it, that it suffers not these to suggest a long train of ideas, successively related

to each other. It generally allows us to go only one step or two beyond them; after we have been led by means of them to conceive one idea, we go not forward to the view of others associated with that; still the passion makes the object nearly allied to it, to dwell upon the thought; we recur to the contemplation of this object, and it suggests a new idea, related to itself but not to that idea which it had introduced formerly. In other cases, after the imagination has once received an impulse, it readily goes on from one perception through a number of others, till it arrive at a great distance from that with which it began: and it would be difficult to stop its career, to bring it back to the object from which it set out, or to make it enter into a different track. But when the mind is occupied by a passion, the difficulty lies wholly on the other side: the passion directs the view to things closely connected with it, so powerfully and so constantly, that the imagination is drawn backward to repeated conceptions of them: when our natural propensity to vary the object of our thought, indisposes us for dwelling longer on them alone, they yet retain their hold of us so far that we enter easily into another track pointed out by them:

we cannot without a painful effort, often we cannot at all, proceed so long in one path as to leave them far behind us; all the ideas introduced after a few removes, are but slightly connected with the object which the passion disposes us to rest upon; and that passion checks all propensity to go through or attend to many ideas but slightly connected. The imagination resembles a person attached to home, who cannot without reluctance undertake a long journey, but can with pleasure make short excursions, returning home from each, and thence setting out anew. Opposite forces in mechanics tend to destroy one another. This is analogous to the case before us. The objects strictly connected with a passion are naturally fit for introducing ideas related to themselves; the passion acts in a contrary direction, and endeavours to keep the mind from running off to these: there is a perpetual struggle between the two. The passion having kept the attention fixt for some time on an object intimately connected with it, its force begins to flag: that object is conceived in a lively and vigorous manner, by reason of its relation to the passion, and therefore very powerfully draws in ideas associated with it. But the conception of all the succeeding ob-

jects drawn in by it, is still weaker and weaker ; on this account their power of introducing ideas becomes continually less and less ; so that after a few steps they give us a very inconsiderable propensity to go forward. The passion exerts a force superior to their's ; it therefore prevails, it prevents farther association, it brings back the attention to some object closely connected with it, it invigorates the conception of that object so as to enable it to suggest a new idea ; but it hinders us from going to a greater distance than before. Here we discover a new cause of that abruptness of thought which a passion occasions. It arises partly, we have seen, from the mind's dividing its attention between several objects all closely and almost equally connected with the passion ; partly from the rapidity with which the mind takes in dissimilar views of any one of these objects ; and partly from the struggle between objects suggested by the passion, and objects suggested by other means : but it also arises partly from the constant vibration of the thought between the objects immediately connected with the passion, and the ideas which they tend to introduce. The mind leaves any of these ideas as soon as it has conceived it, it lays hold of an object more closely connected

connected with the passion, it runs from it to an idea suggested by it, but wholly unrelated to the former. This alone must produce a great want of connexion, and many breaks, in the expression of sentiments resulting from a passion. These principles now laid down, are sufficiently illustrated by the last example which we cited. Alonzo's grief made the loss of his son to suggest the distance of his daughter, and the consequence of that distance, the improbability of his ever seeing her; but without allowing him to pursue that thought, hurries him back to the loss of his son, and sets him a thinking on new circumstances connected with it. The marriage of his daughter, the loss of his son, the loss of his daughter, her distance, the little chance for his seeing her again, the loss of his son, his being heir to extensive territories, his being devoured by fishes, all succeed one another in his thoughts, with great abruptness and rapidity.

THERE is a fault very common in dramatic poetry: persons are made to express their passions, not as if they were really actuated by them, but as if they were spectators of them in others; the poet gives not a natural *representation* of the passion, but a laboured *description* of it. The observations just now

made, lead us to a discovery of the source of this fault. An object which is in a particular instance strictly connected with a passion, and forced into the mind by it, may be considered not only in this particular point of view, but also simply in itself, as a present perception. Its influence on association is very different, according as it stands in one of these situations or the other. When it is in the mind simply as a present perception, it tends to suggest any ideas whatever that are connected with it by any of the associating qualities, and to cause the mind run from one of these through a long train of ideas successively introducing one another. But when it is brought into the mind by a passion to which it is intimately related, it receives a tincture from that passion, it is wholly under the direction of that passion, it exerts its power of association only in such ways and so far as the passion permits, it introduces such ideas alone as are suitable to the passion, and it introduces no long trains of ideas, but suffers the mind to return quickly to the conception of itself, or of some other object as intimately related to the passion. For example, a person may think of the distress of another without feeling pity: in this case, the thought of that distress may lead him

him to conceive any of the actions of the person who suffers it, any other persons who have had a concern in these actions or a connexion with the actor, any particulars of the conduct or fortunes of these persons; and may thus open a boundless field of thought. But when the distress excites pity, this passion extinguishes all propensity to such excursions, it fixes our view on the distress by which it is produced. This distress may suggest, by means of resemblance, other instances of distress in other persons; it may suggest, by means of contrariety, such circumstances of former prosperity, as aggravate the present distress; it may lead us to think of the cause of it, or to trace out its consequences; in a word, it may introduce any ideas strictly connected with it, and congruous to the passion of pity: but it has no tendency to suggest any others, or to lead the imagination into a remote or extensive wandering. Did it attempt this, and did the mind follow it without reserve, it must quickly come to some ideas repugnant to the passion, and fit for producing an opposite disposition: but this cannot naturally or easily happen to a person under the power of any passion. A passion leaves no inclination for going through a long train of
ideas,

ideas, and if the mind should run off to any distance or to unsuitable ideas, the passion would immediately check it, and recall the attention to ideas congruous to itself, as well as related to the object immediately suggested by it. Now an indifferent poet having conceived some of the objects strictly connected with a passion, considers that object only in general, and abstractly as a present perception; he therefore allows himself to run into such a train of thought, as that object present to the mind would dictate, if it were unconnected with any passion; he goes on coolly imagining such ideas as it suggests by means of any of the principles of association; and he makes the person possessed by the passion, to express all these ideas. He feels not the passion, he has not force of genius or sensibility of heart sufficient for conceiving how it would affect a person who felt it, or for entering into the sentiments which it would produce in him. The sentiments which he makes him utter, might all be very proper in a description, a discourse, or a meditation, occasioned by the view of such an object; but they are not natural to a person in whom that object produces a suitable passion. In order to conceive sentiments natural to him, the poet ought
to

to have confined himself to the consideration of the object in this one point of view, as strictly connected with a passion and suggested by it; he ought to indulge only such a train of thought, as it would lead to in these circumstances, or such a train as the passion with which it is presently connected, would introduce into the mind of a person under the power of that passion.

This is indeed so difficult, that the best poets cannot always perfectly attain it. Shakespear makes the dutchess of Gloucester, in parting with John of Gaunt, to express her grief in this manner :

Yet one word more ; grief boundeth where it falls,

Not with the empty hollowness, but weight :

I take my leave before I have begun ;

For sorrow ends not when it seemeth done.

Commend me to my brother, Edmund York ;

Lo, this is all——nay yet depart not so ;

Though this be all, do not so quickly go :

I shall remember more. Bid him—oh what ?

With all good speed at Plashie visit me.

Alack, and what shall good old York see there,

But empty lodgings, and unfurnish'd walls,

Unpeopled offices, untrodden stones ?

And what hear there for welcome, but my groans ?

Therefore commend me,—let him not come there

To seek out sorrow that dwells every where ;

All

All desolate will I from hence, and die ;

The last leave of thee takes my weeping eye. (i)

The latter part of the speech is a natural expression of grief, and of violent grief ; the first four lines are a description, not an expression of it, and therefore unsuitable to the dutchess's state of mind ; the reflection which they contain is just, but too cool for the temper of the speaker.

It follows from the observations which have been made, that a passion tends to hinder the mind from running into the conception of such ideas as have no connexion with that passion. Since a passion fixes the view on objects immediately connected with it, since it continually draws the mind back to the conception of these objects even from ideas suggested by themselves, since it prevents their introducing many ideas naturally connected with them, the necessary consequence is, that it will much more exclude ideas which have no relation either to these objects or to the passion, and will render a very strong effort requisite for bringing them into view. A direct proof of this arises from the difficulty which we experience in diverting any passion which has taken firm possession of the soul, by

(i) *Richard II.*: act 1. scene 3.

application to such subjects as have a tendency to banish it: the strongest resolution and the intensest endeavours are often insufficient for bringing the mind to fix on these subjects. Nay, so great is the force of the passion, that when other subjects are most powerfully urged upon us, when we have the strongest calls to give application to them, yet we cannot enter into them with spirit; the passion mixes with all our thoughts, and continually disturbs the course of them.

It often happens that two different passions, or that a present passion and an habitual disposition, occupy the mind together. Each of these having a tendency to fix the mind on objects strictly connected with itself, or to direct it to such ideas as these objects suggest, the mind turns quickly from thoughts introduced by the one passion, to those which are introduced by the other, and runs constantly backward and forward between them, without resting a moment on either. In this case, the thoughts must have an uncommon degree of abruptness: each of the passions singly would have occasioned abruptness in the ways already taken notice of; but to this is super-added the unconnectedness which arises from the view being successively directed to objects associated

associated with different passions. Shakespear affords us a striking instance of this, when he represents Shylock agitated by avarice, by grief for the loss of his daughter, and by rage at her having married a Christian and stolen his money, and in consequence of that agitation exclaiming,

My daughter, O my ducats, O my daughter !
 Fled with a Christian ? O my christian ducats !
 Justice, the law, my ducats, and my daughter !
 A sealed bag, two sealed bags of ducats,
 Of double ducats, stol'n from me by my daughter !
 And jewels, two stones, rich and precious stones,
 Stol'n by my daughter ! justice ! find the girl ;
 She hath the stones upon her, and the ducats ! (k)

It was evinced, that *habit* not only promotes the introduction of such ideas as it has rendered familiar, but also gives the mind, in some cases, a propensity to associate ideas by one relation rather than by others. It does not appear that *the passions* give an absolute preference to any one relation. An object immediately connected with a passion, suggests indiscriminately ideas connected with itself by any of the associating qualities. Some of these qualities may, however, be considered as in some sense more suitable to the passions than

(k) *Merchant of Venice*, act 2, scene 9.

others ;

others; and that in two respects: a passion introduces ideas connected with its immediate objects by some of the associating qualities, more commonly and frequently than such as are connected with them by other associating qualities: and some of the associating qualities lead the mind to a greater distance from the objects strictly connected with the passion, than others of them. Ideas introduced by some associating qualities, have a less perfect relation to the passion, than ideas introduced by others: the former ideas are rarely suggested by a passion, the latter often: the qualities which give ideas introduced by them but an imperfect relation, scarce ever lead the mind more than one step beyond the objects strictly connected with the passion; the others may lead it several steps, introducing a series of ideas successively associated with one another.

RESEMBLANCE is a quality of the former kind: there are many ways in which ideas may resemble an object intimately connected with a passion, that will not lead that object to suggest these ideas. The resemblance must be of a peculiar kind, must be such as fits an idea to affect the passion in the same way with the object which suggests it, else the pas-

sion will check its operation. When the resemblance is thus peculiar, the association is indeed very strong; there are few ideas which occur more readily either to a person suffering any distress, or to a spectator moved with pity for his suffering, than the idea of a similar distress. But other sorts of resemblance have no such effect: hence it is universally allowed, that similitudes are in general unsuitable to the language of passion, and that even metaphors ought to be admitted into it with great reserve. In this respect, what Shakspeare puts into the mouth of the queen, when she sees her husband king Richard a prisoner, is faulty and unnatural;

But soft, but see, or rather do not see,
My fair rose wither; yet look up; behold,
That you in pity may dissolve to dew,
And wash him fresh again with true-love tears.
O thou the model where old Troy did stand,
Thou map of honour, thou king Richard's tomb,
And not king Richard; thou most beauteous inn,
Why should hard favour'd grief be lodg'd in thee,
When triumph is become an ale-house guest? (*l*)

Besides, resemblance leads the mind only one step; an idea suggested by means of its resemblance to any of the objects strictly con-

(*l*) *Richard II.* act 5. scene 1.

ned with a passion, seldom suggests another idea resembling itself. A passion occupies the mind too much, to leave it leisure or inclination for hunting after similitudes. One resembling idea is often suitable to the passion, and fit to influence it; but by conceiving another idea resembling that, much more by going through several ideas, each of which is suggested by its resemblance to the preceding, we must come to such as are no ways related to the passion, as are wholly unfit for influencing it, and as bear no likeness to any of the objects closely connected with it. But the nature of passion permits us not to indulge ourselves in the conception of such ideas. Richard giving vent to his grief in prison, might naturally say, on hearing time broke in music,

And here have I the daintiness of ear,
To check time broke in a disorder'd string;
But for the concord of my state and time,
Had not an ear to hear my true time broke :
I wasted time, and now doth time waste me.

But he could scarce naturally add,

For now hath time made me his numb'ring clock :
My thoughts are minutes ; and with sighs they jar
Their watches to mine eyes the outward watch ;

Whereto my finger, like a dial's point,
Is pointing still, in cleansing them from tears. (*m*)

OBJECTS strictly connected with a passion, often suggest *contrary* objects; but they suggest only such as are contrary in some particular ways, which render them fit for influencing the present passion: objects in all other ways contrary, the passion leads the mind to reject.

Lady. Madam, we'll tell tales.

Queen. Of sorrow, or of joy?

Lady. Of either, Madam.

Queen. Of neither, girl.

For if of joy, being altogether wanting,
It doth remember me the more of sorrow:
Or if of grief, &c. (*n*)

Contrariety seldom leads the mind more than one step from the object immediately suggested by the passion: a short contrast may very much enliven our conception of that object; it thus naturally falls in with the passion: but a series of contrasts would produce a very different effect; a multitude of antitheses in writing of any sort, show an imagination disposed to seek amusement, not a mind intensely engaged by its subject.

(*m*) *Richard II.* act 5. scene 10.

(*n*) *Ibid.* act 5. scene 7.

OBJECTS strictly connected with a passion, often suggest likewise the ideas of other objects associated with them by *vicinity*. Indeed contiguous objects are frequently connected together by other relations, and in that case a passion leads us strongly to conceive them. But vicinity alone is sufficient for producing this effect: a view of the contiguous objects renders our conception of a thing determinate and lively, and thus when that thing is intimately related to a passion, tends to invigorate and support the passion. A passion makes us prone to this, and naturally assists vicinity in introducing such ideas as can promote it. But vicinity never introduces a long train of ideas: it would be unnatural for a person actuated by any passion, to run along a multitude of objects contiguous to one another either in place or in time, for this would tend to divert the passion by variety.

CO-EXISTENCE and the relation of *cause and effect*, are the principles of association which the passions employ most frequently, and which suggest the longest trains of ideas. These give ideas the most perfect relation to a passion; and almost every idea introduced by means of these principles, really influences

the passion. Co-existence suggests the qualities, the circumstances, the accessories, and the concomitants of those objects which are closely connected with the passion; and the more of these we have in our view, the stronger and livelier is our conception of those objects. All the objects almost which the relation of cause and effect can suggest, contribute either more immediately or more remotely to the production of the passion itself; and therefore are strongly connected with it. Accordingly, in most of the examples which have been produced, the ideas suggested by objects strictly connected with the passions, are such as are suggested by means of these two principles of association.

It is a natural inference from the observations which have been already made, that the passions, far from disposing us to follow order in the train of our ideas, render us incapable of preserving order. The inference is so obvious, that it is not necessary to spend time in confirming it. Abruptness, incoherence, fluctuation of thought, are the consequences of passion; and these are the reverse of order. But it is worth while to observe, that a passion even inverts the natural order of our ideas. As the imagination passes
from

from one idea to another connected with it, so a passion once excited does not confine itself to its first object, but readily extends itself to other objects connected with that; love or hatred to any person, seldom fails to produce some degree of love or hatred to such as are connected with him. It has been shown by philosophers, that the imagination passes most readily from a less considerable to a more considerable object; but that a passion, on the contrary, passes with greatest ease from the more to the less considerable object (*o*): and what we would now observe is, that a passion prevailing in the mind, causes the imagination to proceed in this latter direction. Indeed if it did not, the passion itself could not be extended to the inferior and subordinate objects; for it cannot be directed to them till we have formed ideas of them. When the mind is cool, and not under the influence of any passion, the idea of a son or of a servant suggests the idea of the father or the master, more naturally and more certainly than the idea of the father or the master would suggest that of the son or the servant. On the contrary, love, hatred, resentment, towards a father or a master, very readily extend them-

(*o*) Treatise of Human Nature, Vol. II. Part ii. Sect. 2.

184 *Ideas suggested by Sensations*, PART II.
selves to the son or the servant, though we might feel the same passions towards these latter, without conceiving any degree of them towards the former. At the same time the passion towards the superior, gives the imagination an irresistible propensity to run into the conception of the inferior or dependent: eager to extend itself, it forces upon us the idea without which it could not be extended.

S E C T. IV.

Reflections on the Principles of Association.
Ideas suggested either by Sensations, or by other Ideas.

FROM the account which has been already given of the principles of association, it is easy to collect, That there is a broad foundation laid in the nature of the human imagination, for great extent and variety of genius. There are many relations of ideas, which fit them for being associated; almost every perception bears some of these relations to many different ideas; habit and the passions multiply and vary the instruments of association: by these means there are innumerable handles by which the imagination

nation may seize such ideas as it has occasion for. Genius has, in some men, great force and compass : but a vigorous construction of the associating principles is sufficient to account for it, however great it be ; for if they be vigorous, any one perception may introduce a great multitude of others, and that by means of many different relations. The principles of association likewise being so various, cannot but admit many distinct combinations and modifications, by which genius will be moulded into a great diversity of forms. In order therefore to prepare the way for a discovery of the varieties of genius, it will be proper to make some reflections on the principles of association, which have been separately illustrated.

THE present perception which introduces others, by means of the relations that they bear to it, may be either a sensation of an object, or only an idea of it. In whichever of these ways the object be perceived, it has the very same relations to others ; and therefore in both cases it has a tendency to suggest the very same ideas. But it will not always suggest them with the same force or certainty in these two cases.

THAT

THAT a perception may introduce others, it is necessary that itself take some hold of the mind, and be attended to; and the stronger a perception is, it takes the firmer hold of the mind, and excites the closer attention. The actual sensation of an object is always much stronger than any conception of it, which memory or imagination can exhibit. On this account, a sensation of an object will often introduce ideas which the mere conception of that object would not have force to suggest; it gives a stronger impulse to the mind, and renders less intimate relations to the present object, sufficient for bringing these ideas into view. Merely to think of darkness, does not lead us so readily or so necessarily to the conception of its opposite, light, as our being actually involved in darkness. The sight of a ship perishing in a storm, not only raises stronger emotions, but likewise introduces a much greater variety of ideas into the mind, than barely reading or hearing of a shipwreck: in the latter case, it sometimes makes so little impression upon us, as not to give rise to any train of ideas. The mention or the accidental recollection of a place where we have spent a considerable part of our lives,

will

will bring to mind occurrences which happened there; but every person has felt, that visiting that place reminds him of many more, and makes them rush into his thoughts with much greater rapidity. The mention of a person often makes us recollect that there is some purpose for which we want to see him; but sometimes, when we cannot call to mind what it particularly is, the sight of that person brings it quickly into our thoughts. In consequence of the superior force of sensations, which enables them to suggest conceptions by means of much weaker relations than ideas can, it often happens, that an object occurring to the senses, gives a very quick, and seemingly unaccountable turn to the course of the thoughts. It makes a man cease to pursue a train of sentiments connected with his former ideas by the strongest relations, and run into such as are much more weakly related to the object which he perceives by sense.

BUT, on the other hand, there are cases in which the idea of an object will suggest such thoughts as the sensation of that object could not have suggested. This happens chiefly when objects are of such a nature, that the sensation of them is exceeding strong and interesting

terests us very deeply, when, for instance, it is in a high degree pleasant or painful, or when it produces any strong or violent passion. In these cases, it engrosses our whole attention, and by doing so, prevents ideas from occurring, which would have been naturally suggested by a mere idea of that object, because the idea would not have occupied the mind so much. Many of the observations which we have already made concerning the passions, may be easily applied to the illustration of this position. To confirm it by a separate example, relations of tortures sometimes suggest a variety of conceptions of different kinds; but it is remarked, that the sight of tortures chills the whole soul, and produces almost a total stagnation of thought.

A PERSON has always sensations of those objects which belong to his own state and condition; others, who observe his situation, conceive the same objects only in idea. Hence there arises often a great difference between the train of thoughts which are raised in a person by the sense of his own situation, and that train which observation of his situation introduces into the minds of others. The thoughts, reflections, and sentiments of a person who actually feels pain or sickness, are generally

generally different in several respects, from those of the persons who visit him; these often engage in conversation, even relating to his distress, into which he can by no means enter. Suppose a person raised from meanness to great prosperity or dignity; his own sentiments are very unlike to the reflections of spectators. The vivacity with which he perceives it, the force with which it lays hold of him by means of the senses, leads him into many thoughts which the idea of it has not power enough to suggest to others. But at the same time it scarce at all leads him to think of some things which most readily occur to the rest of the world. The contrast between his present and his former situation, is one of the first and most natural reflections that the world makes: but there are many reflections into which the man himself runs more easily and more frequently. His present situation makes so strong an impression on him, that he attends chiefly to such ideas as are suitable to it; it excites many agreeable passions, these increase his propensity to attend only to agreeable perceptions: his former meanness is in the main mortifying, and therefore the whole of his temper opposes his running into the contemplation of it. Many
regard

regard both the present and the past state of another with great indifference; neither affects them much, neither raises any passion; they consider both without any emotion, merely as objects exposed to their view: these objects can suggest ideas to them, only by their natural relations to other objects; and therefore they run freely into whatever thoughts these relations suggest: contrariety is one of these relations; its force is the greater in this case, because the opposite conditions belong to the same person; and by means of it, the man's former condition is readily brought into view. Some again observe such a change of fortune happening to another, not without some emotion. Whenever, for instance, the idea of it occurs to one person, it is attended with envy, and this passion augments its power to suggest his former meanness, and turns it when it is suggested, into such a form as makes it seem to fully or obscure his present elevation. On the contrary, in the mind of the benevolent, such good fortune produces joy; the person's former obscurity, by rendering the good fortune the greater, tends to support and raise that joy, and therefore finds ready access to the mind.

IN a word, the train of sentiments introduced by an object, varies considerably according as a person has himself a sensation of that object, or only observes one who has; and that both because the immediate effects of *sensations* on association, are different in many respects from those of *ideas*, and because they give rise to different passions and emotions. Every one who would give a natural representation of thoughts and sentiments, must attend to this principle: it has therefore a near relation to every species of genius which is conversant about characters. It has likewise a more extensive influence upon genius: sentiments suggested by a man's own situation, mix with all the exertions of his genius, on whatever subjects it be employed; and his situation thus gives it some peculiarity, and distinguishes his productions from those of another man possessed of the most similar genius, but placed in dissimilar circumstances.

THUS association is susceptible of great varieties according as it is produced by a sensation, or by an idea: it is likewise susceptible of varieties arising from other causes, which we shall next proceed to consider.

S E C T. V.

Of the Combination of the associating Principles.

THE several principles of association which have been enumerated, are different, and some of them are very unlike to others of them : every perception whatever is connected with some ideas by some of these principles, and with some ideas by other principles ; but often also a perception is connected with another by two or more of these principles at once.

It was impossible to consider the associating principles so much separately, as to prevent many instances of this combination from occurring in what has been already said, or to avoid mentioning some of the consequences of it. We have found examples of habit and of passion concurring with some of the relations of ideas, in suggesting the same thought. Different relations of ideas may be combined in like manner. A thing which resembles another, may at the same time be contiguous to it, or be its cause, or its effect. Morton, relating

relating in what manner Piercy's fall deprived his troops of courage, says,

For from his metal was his party steel'd ;
Which once in him abated, all the rest
Turn'd on themselves, like dull and heavy lead.
And as the thing that's heavy in itself,
Upon enforcement flies with greatest speed :
So did our men, heavy in Hotspur's loss,
Lend to this weight such lightness with their fear,
That arrows fled not swifter toward their aim,
Than did our soldiers, aiming at their safety,
Fly from the field.—(a)

The several images here employed; *steel losing its temper; heavy things moving faster than light things, when they are projected with sufficient force; arrows flying to a mark;* have such a degree of resemblance to the dejection and flight of brave soldiers, as is sufficient to render them proper similitudes: but in this case, they are not suggested to the poet by resemblance alone; being things employed in war, they have all a kind of vicinity to what happened in the field of battle; the use that is made of them in war, connects them with it by a species of causation; and therefore they have a stronger relation to the subject described, than images which only re-

(a) Second part of *Henry IV.* act 1. scene 3.

femble it, though in the most perfect manner. The power of these complicated relations has hurried on the poet to pursue and to accumulate the images, more than is consistent with perfect simplicity and correctness. Justin was led by the same co-operation of principles, to the choice of the similitude by which he illustrates the effect of the death of Epaminondas, on the spirit of the Thebans, a similitude too remote to have otherwise come into his mind: "For as, if you break
 " off the point of a weapon, you take from
 " the rest of the iron the power of hurting,
 " so that General of the Thebans, being taken
 " away, like the point of the weapon, the
 " power also of the state was deadened (*b*)."

IT is not necessary to multiply examples of the combination of different associating qualities; to conceive this, is not a matter of any difficulty. But it will be proper to make an observation which serves to render some of our former conclusions more precise and determinate. We could scarce avoid mentioning *contrariety* as an associating quality, because it sometimes connects ideas by itself, and be-

(*b*) Nam sicuti telo si primam aciem præfregeris, reliquo ferro vim nocendi sustuleris; sic illo, velut mucrone teli, ablato duce Thebanorum, rei quoque publicæ vires hebetatæ sunt. *Hist.* lib. vi. cap. 8.

cause often when it is assisted by other relations, it is notwithstanding the chief and prevalent relation. But from a review of the examples which were given, it will appear, that for the most part, when contrariety unites ideas, it is combined with some other relation. One thing, for instance, suggests its contrary when both belong to the same subject, in many cases where it would not suggest it, if they belonged to different subjects. It is when opposite fortunes happen by a remarkable reverse, to the same person, that they irresistibly suggest each other.

ONE effect of the combination of different associating principles, has been often hinted at already. That combination produces a closer and stronger relation between perceptions, than either of the principles alone: one of the perceptions introduces the other with a double force, and therefore in preference to those which are connected with it only by a single tie.

THIS combination likewise contributes greatly to the *force* and extent of genius. It supplies the imagination with many means of apprehending the conceptions for which it has occasion. If a person be not affected by one of the relations which subsist between a

present perception and an idea which suits his purpose, he may be affected by another of them. If neither of the relations singly have force enough to operate upon his imagination, they may derive sufficient force from their union, and be able together to lead him readily to the discovery of such apposite materials as otherwise he must have missed.

THIS combination contributes not only to increase the force of genius, but also to diversify its *form*. The separate principles of association being so numerous as they are, must be susceptible of an almost infinite number of combinations; and every possible combination of them constitutes a new ground of union among perceptions, which will be subservient to genius. Any present perception will suggest a thousand different ideas to as many different persons, according to the different associating principles or combinations of principles by which they are affected; and this will produce a correspondent diversity both in the substance and in the structure of their works.

S E C T. VI.

Of the Modifications of the associating Principles.

AS the principles of association may be combined with endless variety, so each principle is susceptible of different forms or modifications. This was hinted before ; it will now be proper to explain it.

VICINITY admits degrees ; for objects do not suggest those only which are properly contiguous ; but it admits not any diversity in kind, except what was already taken notice of, that it may be referred either to place or to time. But all the other principles of association are susceptible of much greater varieties.

RESEMBLANCE not only takes place in different *degrees*, but also is of different *kinds*. The difference is only in degree, when the same quality of an object is the ground of its resemblance to several different things : one thing may resemble several others, in colour, suppose ; but resembles them more or less, according to the different shades of that colour, which belong to them. Again, the

difference is only in degree, when it arises from things possessing the same qualities in common, but possessing more or fewer of them. One quality common to two objects, forms a real resemblance between them; but the resemblance is much more perfect when they have several common qualities: all animals, or all vegetables, have some degree of resemblance; animals or vegetables of the same class, have a greater resemblance; those of the same genus, still a greater; the individuals of the same species, yet a greater; and some of the individuals have a much more perfect resemblance than others.

BUT farther, one thing may resemble several others, by means of its different qualities; it may resemble some by its colour, others by its smell, others by its figure, others by its size: each of these forms a different kind of resemblance; for neither the qualities themselves, nor the similitudes arising from them, can admit comparison in respect of degree. Hence any one thing is capable of as many sorts of resemblance to other things, as it possesses distinct qualities. It is capable of many more.

IT not only resembles some things by its particular, definite, constituent qualities, as
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in the instances already given: it may resemble other things by some general character belonging to some of its qualities. Sweetness originally and properly belongs to tastes; but in a figurative sense we speak of sweet colours, sweet sounds, sweet dispositions; we intend to express some character common to these distinct qualities, which produces a resemblance among them, so obvious that it has rendered the figure ordinary in all languages, if not strictly universal.

A THING may likewise resemble others, by a sort of general appearance resulting from all its qualities, or from several of them. Of this kind are the general likenesses which are often observed between the faces and the airs of different persons.

IT may resemble other things, by bearing the same relation to some object, which they bear to the same object, or even to kindred objects, nay to objects in no way connected; by proceeding from the same cause, or by proceeding from a similar cause, or by proceeding from a totally different cause in a somewhat similar manner; or by producing similar effects, or by producing its peculiar effects in a similar manner. Resemblances of this sort, however slight or remote they may

be thought at first sight, are so close and just, that they are sufficient for producing a transition from one object to another, which cannot be reckoned unnatural, even when a person is under the influence of a passion: Bassanio overjoyed at Portia's having accepted his love, says,

Madam, you have bereft me of all words,
Only my blood speaks to you in my veins ;
And there is such confusion in my pow'rs,
As, after some oration fairly spoke
By a beloved Prince, there doth appear
Among the buzzing, pleased multitude,
Where every something being blent together,
Turns to a wild of nothing, save of joy
Express, and not express. (a)

The cause of his joy is compared to what resembles it in no respect except in producing a similar effect upon the mind, a like confused sensation of joy. If that comparison should by any be thought not entirely natural in a person's expression of his own passion, yet it will be acknowledged by all, that in a description of that passion, the comparison would be unexceptionable ; and this is a sufficient proof, that the resemblance is a proper ground of association. The justness of these

(a) *Merchant of Venice*, act 3, scene 2.

forts

sorts of resemblance appears farther from this, that they have given rise to comparisons and metaphors which show themselves to be natural by being adopted in all ages and nations : it is in some of the indirect ways now mentioned, that light resembles knowlege, joy, goodness, and perfection ; yet light is one of the most beautiful and natural emblems of all these. The resemblance which takes place between simple perceptions of the same class, between different smells, for instance, seems to belong to some of the kinds now under consideration. Simple perceptions being void of composition, can scarce have some qualities in common, and other qualities which distinguish them ; our notion of their resemblance must proceed from their affecting the mind in ways, the similarity of which we perceive, though we cannot perhaps explain it, or from our presuming that they proceed from causes somehow closely related.

IN a word, there is no quality, no relation, no action of an object, no point of view in which we can consider it, but may be the foundation of a resemblance between it and some other. The resemblance is often of a very delicate nature, and yet very obvious and strong ; we readily feel it, but sometimes we
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can scarce at all define whence it arises, or of what kind it is.

CONTRARIETY, in the extent in which it is generally understood, and in which it promotes association, is reducible to several different species. By contrariety is sometimes meant only great diversity, dissimilitude or distance; as when bitter is said to be contrary to sweet; and in this sense it admits many degrees. In another sense, objects are called contrary, when one is only the negation or absence of the other; thus darkness and light, health and sickness, are contraries (*b*). Other objects are contraries in a still more proper sense, as pleasure and pain, hope and fear, love and hatred. Very often the two former of these kinds of contrariety, and sometimes all the three, run into one another by an easy gradation: rich and poor are terms of contrariety, but they express, at different times, all the three species of contrariety; poverty sometimes signifies only a very inferior degree of riches, and then the contrariety is of the first

(*b*) Cicero takes notice of these two kinds, though under different names; *Contrarium est, quod positum in genere diverso, ab eodem cui contrarium esse dicitur, plurimum distat, ut frigus calori, vitæ mors. Disparatum autem est id, quod ab aliqua re per oppositionem negationis separatur, hoc modo, sapere et non sapere. De Invent. Lib. I.* But the examples which he gives are not apposite, except in the mere expression.

kind;

kind; sometimes it denotes total indigence, in which case the contrariety is of the second kind; but if the person to whose condition the word is applied be in debt, the contrariety is of the third kind.

OBJECTS which, considered simply in themselves, could not be reckoned contraries, yet come to be regarded as such, when either their causes or their effects are contrary in any of the senses that have been mentioned. Heat and cold are perhaps termed contraries, rather on account of the contrariety of their causes and of their effects, than of any opposition between the two sensations themselves. Acids and alkalis, astringents and laxatives, septics and antiseptics, are denominated contraries, merely on account of the contrariety of some of their effects.

OF *co-existence* also there are many different modifications. Those qualities which are united in any natural whole or individual, are in the properest sense co-existent; yet they are not all co-existent in precisely the same degree or manner. The qualities which are common to one individual with several others, which together form the character of the species, and would be enumerated in a just definition of it, seem to have a co-existence somewhat

what different from those which are peculiar to one or a few individuals. These two sorts of qualities influence association differently: a quality of the former sort most readily suggests the idea of the species; one of the latter sort, the idea of the individual. Some qualities of the latter sort are permanent in the individual; others are temporary: these are, at a particular time, really as inseparable from it, as those are; yet they can scarce be considered as belonging to it by a co-existence equally close, though it is so strong as very readily to produce association.

NOT only the essential qualities of a thing, but circumstances also which are not considered as entering into its substance, may acquire a sort of co-existence with it, which shall act very powerfully on the imagination. Thus whatever belongs to the condition of a person, his possessions, his prospects, all by which he is distinguished from others, all that can render the conception of him more determinate or more striking, acquire a connexion with him, which produces association. Nay, things which have belonged to the state of the same person at different times, as poverty and riches, meanness and elevation, acquire, by means of their relation to him, a connexion
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with one another, which there would be an apparent impropriety in terming co-existence, but which affects the imagination in a manner perfectly analogous. Whatever is closely or long connected with a thing, as an adjunct, or a concomitant, or belongs to it in any way, comes naturally to be considered as in some sense co-existent with it, and they will suggest one another. If we have seen a person at any one time in a remarkable attitude, or situation, or dress, we can scarce ever think of him without conceiving it also. On the other hand, a garment, a ring, the most trifling piece of dress, will produce a lively conception of the person to whom it belonged. Ovid gives us a natural picture of this in Pyramus :

—Ut vero vestem quoque sanguine tinctam
Repperit; una duos nox, inquit, perdet amantes;
E quibus illa fuit longa dignissima vita. (*b*)

SEVERAL distinct substances are often combined into a system; and in that case they are considered as parts of one whole, and are united in the imagination by the principle of co-existence. An army, a nation, a church, is a whole, including several individuals, in a

(*b*) *Metamorph.* lib. iv.

manner

manner similar to that in which an individual includes many different qualities.

WHAT we have said, does not perhaps amount to a complete enumeration of all the forms which co-existence assumes ; but it sufficiently evinces that this relation does assume a very great variety of forms.

IT would not be easy to pursue the relation of *cause* and *effect*, through all the forms in which it operates on the imagination ; but many of the principal ones are very obvious. What gives existence to any thing, what makes any change in it, what influences any of its powers or virtues, what contributes to its preservation, or to its destruction, a mean for answering any end, an argument for proving any conclusion, a proposition from which a corollary may be deduced, a motive to any sort of conduct ; all these are called causes, but plainly in very different senses ; and they all are, in the imagination, associated with their several effects or consequences. In the examples which we have had occasion to produce, most of these modifications of causation have occurred. This relation makes a perception of the cause, or of the effect, to introduce the idea of its correlative, whether the

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the effect be a substance or a mode, whether the cause give existence to the effect, or only alter it, or in any way affect it, or have a power of affecting it. But the relation has greatest force when it is most perfect: a servant will not so readily suggest the idea of his master, as a son that of his father.

OBJECTS may be connected as cause and effect, when one of them does not immediately produce or influence the other. What is, in any of the senses now mentioned, a cause, is connected not only with its immediate effects, but also with the remotest effects of any thing produced or affected by it. In a series of things where each is the immediate cause of what succeeds it, the last effect really depends upon the first cause. Sometimes we are ignorant of many of the intermediate steps, and regard that as the nearest, which is only a remote cause: an ordinary man reckons the motion of his hand the immediate effect of his volition, because he knows nothing of the muscles by which his hand is moved. But even when we are acquainted with the whole chain of causes and effects, the effect will sometimes suggest a remote cause, without our ever thinking of the intervening links; or the remote cause will directly

rectly introduce the idea of the effect which springs from it by the mediation of many subordinate causes, while to these we do not at all attend. Thus when there has been one among a person's ancestors very eminent, though at a great distance of time, it is natural both for the person himself and for others to direct their thoughts to that one. Horace in addressing his patron, mentions not his father, but much remoter ancestors ;

Mæcenâs, atavis edite regibus. (c)

Tyrrhena regum progenies. (d)

This principle is sometimes so powerful, that a person finds himself disposed to give a family, or even a nation, a name formed from that of their founder, many ages after his death. Such is the epithet which Virgil gives his countrymen long after the time of Romulus;

——Subitoque novum confurgere bellum
Romulidis.——(e)

As the same cause sometimes produces many different effects, all these effects, however dissimilar, are connected with one another by means of their relation to the common cause,

(c) Lib. I. Od. 1.

(d) Lib. III. Od. 29.

(e) *Æneid.* Lib. VIII:

and by virtue of this connexion one of the effects will lead us to think of the other. Heat and light are both effects of fire ; and one of them being perceived, naturally suggests the other. Sometimes one effect suggests the idea of the cause, and this introduces the idea of the other effect. The sight of a son will lead us to think of the father, and the thought of him will introduce a discourse or enquiry concerning his other children. Sometimes again one effect will introduce the idea of another effect, without first suggesting the idea of their common cause. The sight of a person may dispose us to think of a brother, without our once thinking of the parents, by means of whom they are related to each other. In this case, it seems to be a species of resemblance that produces the association ; the two effects are like in this particular, that they are derived from the same cause. In like manner, when two or more objects are joint causes of the same effects, they are related to one another, and the perception of the one readily carries the thoughts to the other.

ORDER, as well as the other relations which promote association, may be distinguished into different species.

THERE is an order in place. The order of things in place may seem sometimes to promote association almost only by the influence of vicinity. Thus the thinking of one of a company, will first lead us to think of the person who sat contiguous to him, then of another who was next to this second, and so on, till we have gone through the whole company in the order in which they happened to be placed. Here the order of the persons, by which the imagination is affected, appears to be little different from vicinity. But it really is somewhat different: we may suppose the same number of persons of which the company consisted, standing together in a confused crowd: in this situation, they may be more closely contiguous than before; but they have not order, and therefore one of them will not so readily suggest the rest, nor will it be so easy to recollect them all. What then is the difference between these two situations? Formerly these persons did compose a regular figure, now they do not. Order, therefore, even of the simplest kind, includes regularity of figure, as well as vicinity; and by means of that regularity, order associates ideas more strongly than vicinity alone. But
order

order in place often implies more; it arises from those things or parts of things being placed contiguous, which are connected by other relations. Thus a number of persons may be placed, not only in some regular figure, but in a farther order, according to their sex, age, or dignity. In this case, the associating force of order, is made up of the united forces of contiguity, and of the relations which the things or parts bear to one another, independent of their contiguity. The parts of a watch are placed in order, when each part is contiguous to those from which it receives, and to which it communicates motion. In consequence of this, the idea of any one part will lead us to conceive the part next to it, or to conceive all the parts, or will suggest an idea of the whole, much more easily and quickly than it could, if we only considered that part as laid in a heap along with the rest: yet in a heap, the parts might have had closer contiguity, than in the machine.

THERE is likewise an order in time. It arises from placing those things in immediate succession, which are related by resemblance, causation, or any other relation. Succession alone would associate the ideas, though their

objects were not otherwise related ; these relations would associate them, though the things had not been successive ; both being combined in order, it must have great power to produce association. In a regular procession, persons not only follow one another, but are disposed according to their rank and dignity : in consequence of this, either the view, or a description of a small part of a procession, is enough to enable the imagination to pass along all the other parts, and to take in a conception of the whole. Successive events are generally connected as causes and effects : when they are, they will readily occur to every person in the order in which they happened, and influenced one another ; every narration may suggest examples of this. But when successive objects happen not to be thus connected, they are slightly associated by mere succession. In a chronological table, events are connected by succession alone ; in a regular history, by order ; in this last case, there is a much greater union of the parts, than in the former. The other relations which, in order, are joined with succession, have so considerable force, that an historian often gives the most perfect order to his narration, by bringing together events in it, which have a natural connexion, though

though they did not happen in immediate succession, and is, without reflection or design, led to adopt this order.

THERE is likewise what may be called an order of nature. This has often a great analogy to order in place and in time. It is no wonder that it should, since we conceive all things as connected both with place and with time. Order in both seems to be, in some instances, established by nature; our thoughts move easily in tracing descent, or in following the course of time, but with difficulty in tracing ascent, or in going backward in time. But still the species of order now under consideration, is different from the other two. In many cases, there is a natural order in things themselves: hence one manner of considering them, is according to order, and another contrary to it; our thoughts must proceed in that natural order, else their progress is obstructed. In conceiving a man, our thoughts pass readily from the head downwards; it is in many respects the principal part of the body, and by it that nourishment is conveyed, which sustains the whole. In conceiving a tree we proceed upwards from the root to the stem and the branches: it is from the first that these latter parts derive their nourishment,

and by it they are supported ; there is also a succession in their first production, they grow up gradually from the root : both these causes have an influence on the course of our thoughts. In conceiving a house, the mind, in like manner, naturally ascends from the bottom to the top, and for the same reasons ; the inferior parts support the superior ; the building proceeds from the foundation upwards : besides, if we would go into the house, we must ascend from the ground towards the roof ; the mind takes the same course.

THERE are perhaps some cases in which custom alone fixes a certain order ; but after custom has fixed it, it operates as strongly on the mind, as if it had been established by nature. Writing from right to left, or from left to right, is determined merely by custom ; but in consequence of that custom, an European finds difficulty in tracing the combination of letters in the former direction, and an Oriental finds equal difficulty in tracing that combination in the latter direction.

THUS every one of the associating principles assumes many different forms ; and every distinct form which any of them can assume, may be considered as a separate relation, and necessarily produces a correspondent peculiarity

rity in the exertion of genius, which is directed by it. The several modifications of these principles must contribute both to increase the force, and to diversify the form of genius, in the very same ways, as it has been already shown that the variety of their combinations does.

S E C T. VII.

Of the Predominance of the associating Principles.

THE observations which we have hitherto made, shew that there must be great differences and dissimilitudes in the effects of genius; for they lead us to perceive that it may proceed from one conception to another in an infinite variety of ways. But in order to explain, in what manner the multitude of the associating qualities lays a foundation for permanent diversities of genius, some farther observations will be necessary.

ALL the associating principles have some degree of force in every man. There is perhaps no person on whom any one of them has no influence at all. But in almost every man, some one of them is predominant: on every subject, a man is apt to follow one relation

rather than any other, and to conceive chiefly such ideas as are, by that relation, connected with the present perception. Whence this proceeds, is perhaps inexplicable; it must, in a great measure, be resolved into original differences in the constitution of the mind; but the thing itself is evident in the most simple and common instances. If different persons set themselves to recollect a company, one naturally recollects it by running over the places occupied by those who composed it; another enumerates them according to their several professions, conditions, ages, or sexes; another according to their respective families and connexions: in the first person, vicinity or order; in the second, resemblance; in the third, the relation of cause and effect, is the predominant principle of association.

WHEN any object is conceived by a person, all its qualities are in some measure present to his view: but in consequence of original differences in the turn of men's imaginations, one man's attention is fixt chiefly on one of these qualities, and another man's attention on a different quality. This is, in many cases, the immediate cause of the predominance of one associating principle. The different qualities of an object not only lay a
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foundation for a connexion between it and different objects, but also connect it with those different objects by means of different relations; and each person is affected by that relation which belongs to the quality on which he most readily fixes his attention. A few persons can scarce engage in a conversation on any subject, without affording an example of this. Whatever it be that is first introduced, almost every person considers it in a different point of view, and in consequence of this runs into a different train of thinking and a different set of reflections. When dialogue is conducted naturally, the several associating qualities by which the speakers are affected, may be easily traced out: each of them goes on in a train suited to his own turn of imagination, and one of them sometimes in a train even opposite to that which is pursued by another. By care to preserve this variety, dialogue-writing is rendered natural; and it is on account of the difficulty of preserving this variety, that so few succeed in that manner of writing.

AN original constitution of mind is not the only cause of a person's being influenced by one associating principle more than by others: it was formerly observed, that this may pro-

ceed from habit. But the habit generally takes its rise from an original propensity to follow chiefly one relation; it always takes its rise from this, when its effects are permanent. A diversity in the predominant principle of association, is often observable very early in children, previous to the possibility of their having contracted habits of thinking, and must therefore be natural. If the original propensity be weak, it may be overpowered by other causes: but if it be strong, it will frequently exert itself; by frequent exertion it will beget a habit of being influenced by it; and by the formation of the habit it will be confirmed. Still, therefore, the predominance of one associating principle or another, is, in most cases at least, ultimately resolvable into an original constitution of the mind.

HERE is a direct foundation for a permanent variety of genius. In some man of genius or another, each of the associating principles is predominant; and whichever of them is, it forms a turn of genius suitable to it, and different from what the prevalence of any other would have produced. Invention in different arts and sciences, is dependent on very different relations of perceptions: genius

for a particular art or science, will therefore be formed by the prevalence of that principle of association which chiefly leads to invention in it. In comparing the works of men of genius, we may find numberless illustrations of this : we may often find the same fact or the same object present to the minds of the philosopher, the historian, the poet, the orator, the painter ; we may observe that it leads each of them a different road, or that they pass from it to other ideas by different relations ; and by attending to these, we may be able to ascertain and describe the peculiarity of genius in each of them.

WHAT has been now said of the different principles of association, is equally applicable to all the different forms or modifications of which it has been shown that every one of these principles is capable. There are various kinds of resemblance, for instance, of contrariety, of causation ; one man is naturally influenced chiefly by one kind, another by another kind ; the turn of genius in each is suitable to that kind by which he is most affected. Hence must arise many diversities of genius. Whether a person pass from causes to effects, or from effects to causes, his imagination is influenced by the same relation : yet all men
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are not equally fitted for both. In mathematics, one man is most turned for algebra, another for geometry. One excels in the analytical part of philosophy, in resolving phenomena into their causes, and reducing them to general laws ; and another excels in explaining the phenomena, in applying general principles to a number of cases, and in accounting for them elegantly and successfully. Many of the false systems of philosophy which have made a figure in the world, certainly display very considerable genius, but genius of different kinds. Des Cartes deduced his whole philosophy from a few general principles : he showed a propensity to pass from causes to their effects. Gilbert endeavoured, in a manner not at all destitute of ingenuity, to resolve all the phenomena of nature into magnetism : the prevailing turn of his imagination was to proceed from effects to causes.

MOST commonly, the great divisions of genius arise from the prevalence of one *principle* of association or another ; and the more minute varieties from the prevalence of different *modifications* of the same principle. Yet these modifications are sometimes so dissimilar, that the predominance of one or another of them produces

produces a difference of genius as great as could be produced by the predominance of principles totally distinct. In a mere recital of facts, there is scarce any room for genius : but the true historian does not confine himself to such recital ; he places facts in connexion, he rises to the sources of actions, and he pursues them through their consequences : it is in this that historical genius appears ; and in this the historian is plainly actuated by the relation of cause and effect. The same actions which the historian relates, may be also considered by the philosopher, their motives attended to, and conclusions deduced from them, concerning the constitution of human nature : in this he is influenced by the same relation of cause and effect, but by a different species of it ; and accordingly he shows a kind of genius totally distinct from that of the historian. I shall give an example which is still more striking. In reducing bodies to regular divisions and subdivisions, the natural historian is conducted altogether by the principle of resemblance ; in adorning a subject with similes and metaphors, the poet is likewise under the influence of the principle of resemblance : yet no two sorts of genius are perhaps more different than that for natural history, and that

that for poetry. In accounting for the phenomena of bodies, the philosopher follows a quite different relation, that of cause and effect; but the genius of a natural historian, is much more akin to philosophical, than to poetical genius.

BUT farther; Not only the prevalence of different forms of the same associating principle, is sufficient for producing very dissimilar turns of genius; but also one of these forms only operating in somewhat different manners, has force enough to mark genius with a perceptible peculiarity. An image is always connected with a subject by resemblance: but the image may be applied either in a comparison or in a metaphor; and one person is led by the turn of his imagination chiefly to the use of the one, and another person chiefly to the use of the other of these figures. Here a diversity of genius, so considerable that it may become in some degree characteristical, arises from a very small difference in the manner in which two persons pass from one perception to another by means of the very same relation, from their only passing with different degrees of rapidity, and considering the resembling object with different degrees of deliberation. Nay, though two
poets

poets illustrate their subjects by the same comparison, they may display a variety of genius by their different manners of pursuing it: one is happy at setting the main image full in view by one bold stroke; the other traces the likeness minutely, and thus introduces elegance into his work. When differences so minute in the form of the same associating principle, and even in the manner of our yielding to the same form of any of the associating principles, can give a peculiar turn to the imagination, there must evidently be room for a prodigious variety in genius.

WE would be apt to take it for granted, that the associating force of any relation must be in proportion to the degree of that relation. The more perfect the relation is between two perceptions, the more closely, we would expect, they shall be united in the imagination, and the more readily shall one of them suggest the other. If resemblance, for instance, be what gives one perception a tendency to introduce another, it is natural to think that this tendency will be strongest when the resemblance is greatest. Doubtless this is generally the case: but it is far from holding universally; there are several limitations and exceptions.

FOR example, Though the relation which one object bears to another be very strong, yet if it be common, if it be such as that object bears likewise to many other objects, it will not operate so strongly on the imagination, as a weaker relation which is special and distinguishing. Number distracts the attention, and hinders any one of the objects from making a striking impression. A nobleman attracts less notice in a crowd of persons of his own rank, than a man of much lower note, would command in a company where he has no equal. Singularity is always striking.

AGAIN ; If it be asserted that the stronger relation will prove the most powerful principle of association, the assertion must be confined to one form or modification of that relation. Of the various forms or modifications which, it has been shown, every relation admits, some may be considered as greater in degree than others : but different men are chiefly affected by different modifications of a relation ; and therefore some will be most affected by a weaker relation, because it is of that form from which they are most susceptible of an impression. Indeed, some of the peculiarities of genius necessarily imply a propensity to be influenced most by some of
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the weaker modifications of the associating principles. Poetical genius, for example, so far as it depends on the force of the principle of resemblance, consists in a propensity to be affected, not by the completest resemblances, but by such as are more imperfect. In poetical imagery, the resemblance ought to be always just, but it is an excellence that it be not altogether obvious, and it is necessary that it be mixt with something of diversity. Any individual is likened, not so often to another individual of the same species, as to one of a different species, or even to something totally different in kind: a hero is compared, not so frequently nor so beautifully to another hero, as to a lion or to the sun. The exact similitudes to which the naturalist confines his attention, have no influence upon the poet, and would be a very improper foundation for metaphors or comparisons.

BUT it is further observable, That some are apt to be influenced even by a weak degree of any modification of an associating quality, rather than by a stronger degree of the very same modification. Thus some men, on whatever subject they reason, deduce all their reasonings from remote principles, and never prove any point by the shortest and most di-

rect arguments. There are writers, most of whose images and antitheses are far-fetched and forced. This turn of imagination produces a peculiarity of genius, but generally such an one as is faulty. A late ingenious writer (a) has remarked this peculiarity, that some are apt to attend chiefly to remote and trifling relations of ideas; and he gives a very apposite example of it from Shakespear;

“ *Hoftefs*. Thou didst swear to me on a parcel-gilt goblet, sitting in my Dolphin-chamber, at the round table, by a sea-coal fire, on Wednesday in Whitsun-week, when the Prince broke thy head for likening him to a singing man of Windsor; thou didst swear to me then, as I was washing thy wound, to marry me, and make me my lady thy wife. Canst thou deny it? did not good-wife Keach the butcher’s wife come in then, and call me gossip Quickly? coming in to borrow a mess of vinegar; telling us she had a good dish of prawns, whereby thou didst desire to eat some; whereby I told thee they were ill for a green wound; and didst not thou, when she was gone down stairs, desire me to be no more so familiarity with such poor people, saying that ere long they should call me Madam? and

(a) *Elements of Criticism*, chap. 1.

didst thou not kiss me, and bid me fetch thee thirty shillings?" (b)

That author accounts for this peculiarity, by resolving it into a want of discernment; but this account is not altogether satisfying. Suppose remote or slightly connected ideas to have occurred to a person, discernment may lead him to reject them, and the want of it may prevent his rejecting them. But the question remains, Whence comes it that such ideas occur to some, and not to others? Their occurring may in some measure proceed indirectly from a want of discernment: the judgment of some men is so strong that it attends imagination in all its exertions, and gives it an habitual tendency to suggest only such ideas as have a proper connexion with the present perception; a defect of judgment or discernment prevents imagination from acquiring this correctness, the want of which leaves it at liberty to run into slight and remote associations. But this is not the principal or immediate, far less the only cause of it: its origin must be sought chiefly in the natural turn of the imagination. If we attend to the example just now quoted, we shall find that all the trifling associations contained

(b) Second part of *Henry IV.* act 2. scene 2.

in it, consist in the introduction of a number of circumstances which have no other connexion with the subject of discourse, but this, that they happened in the place and at the time to which it refers. The turn of imagination which it shows, seems therefore to arise merely from vicinity being the prevailing principle of association. Mere vicinity either in time or in place, is one of the slightest and least important relations, and consequently whenever it is the prevailing relation, it will produce a propensity to trifling associations (c).

(c) That the prevalence of this relation, is by far the most common cause of trifling associations, may, I believe, be affirmed with confidence. If we examine several instances of such trifling associations, we shall find that they are generally formed by mere vicinity. One other instance I shall give from the same author.

Clown. Sir, she came in great with child; and longing (save your honour's reverence) for flew'd prunes; we had but two in the house, which at that very instant time stood, as it were, in a fruit-dish, a dish of some three pence; (your honours have seen such dishes, they are not *China* dishes, but very good dishes.)

Escalus. Go to, go to; no matter for the dish, Sir.

Clown. No indeed, Sir, not of a pin; you are therein in the right: but to the point; as I say, this *Mrs. Elbow*, being, as I say, with child, and being great belly'd, and longing, as I said, for prunes; and having no more in the dish, as I said; Master *Froth* here, this very man, having eaten the rest, as I said, and, as I say, paying for them very honestly; for, as you know. Master *Froth*, I could not give you three pence again.

Froth. No indeed.

Clown. Very well; you being then, if you be remembered, cracking the stones of the foresaid prunes.

Froth. Ay, so I did indeed.

Clown. Why, very well; I telling you then, if you be remembred, that such a one, and such a one, were past cure of

The

The predominance of the principle of resemblance, when indulged without reserve, often produces a similar propensity, as in the *new song of new families*. Some of the qualities of every thing are less important than others; they give rise to none but trivial relations; a propensity therefore to attend chiefly to such qualities, must produce trifling associations, whatever be the principle to which they belong. It deserves to be remarked, however, that a tendency to conceive ideas which are but remotely connected with the present perception, sometimes constitutes an excellence of genius. Some men see at one glance, the most distant causes and consequences of things.

the thing you wot of, unless they kept good diet, as I told you.

Froth. All this is true.

Clown. Why, very well then.

Esqal. Come, you are a tedious fool; to the purpose: what was done to *Elbow's* wife, that he hath cause to complain of? come to what was done to her

Clown. Sir, your honour cannot come to that yet.

Esqal. No, Sir, I mean it not.

Clown. Sir, but you shall come to it, by your honour's leave: and I beseech you, look into Master *Froth* here, Sir, a man of fourscore pound a year: whose father died at *Hallowmas*. Was't not at *Hallowmas*, Master *Froth*?

Froth. All holland etc.

Clown. Why, very well; I hope here be truths. He, Sir, sitting, as I say, in a lower chair, Sir: 'twas in the Bunch of Grapes, where indeed you have a delight to sit, have you not?

Froth. I have so, because it is an open room, and good for winter.

Clown. Why, very well then: I hope here be truths.

Measure for Measure, act 2, scene 2.

This proceeds from an uncommon activity of imagination, which enables it to pass in an instant through a long series of ideas, so that all the middle steps are scarce attended to, and very quickly forgotten.

THE peculiar form which genius assumes, depends not on the predominant principle of association alone, but also on the degree of force which all the other principles of association have. There is not any subject in which invention depends upon, or can be accomplished by only one of these principles. In every subject, there is one *leading* principle of invention; but many other principles, by being exerted in *subordination* to that, contribute to the invention. Though one associating principle be predominant in every man of genius, yet all the other principles operate along with it. These may be combined in very different proportions; and every difference in the manner of their combination, or in their comparative strength, will produce as real, though not so remarkable a peculiarity of genius, as a difference in the predominant principle. In such genius, for instance, as enables a man to account for the phenomena of things, the relation of cause and effect is the predominant principle of association: but
resemblance

resemblance also must have some force, otherwise the similar phenomena, and the analogous experiments from which general conclusions are deducible, cannot be suggested; order must have some influence, for if the observations be not properly disposed, they will lead to no conclusion: contrariety must have some influence, else those contradictory instances will not occur, which are necessary for limiting the conclusions and giving them precision. Every different proportion which these principles bear to one another, will stamp philosophical genius with a peculiar character, will adapt it to one particular sort of subjects, or will give it a determinate degree of excellence. In genius of every kind, there is the like complication and adjustment of associating principles. In every individual, genius is like an organized body, the form of which arises from the manner in which the several members are combined, and is altered by every the smallest change in the size or position of any one of them. This being the case, the possible arrangements and subordinations of all the associating principles and their modifications, are so many that they lay a foundation for an endless variety of genius.

S E C T. VIII.

Of Flexibility of Imagination.

WE have now pointed out some fixt and permanent qualities of the imagination, which are sufficient for the production of a great variety of genius : but before we leave this part of the subject, it will be proper to observe, that imagination has a certain pliability or flexibility, by means of which still greater variety is introduced.

ANY particular turn of imagination does not lie in a mere point ; it admits some latitude without losing its characteristical peculiarity. The predominant principle of association may continue the same in the main, and yet lead into tracks of thought considerably different : the proportions which the several principles of association bear to one another, may be altered without being wholly destroyed ; just as the configuration of the features may be altered in a face by different passions or different states of health, and yet that face be acknowledged the same, and remain clearly distinguishable from every other. In consequence of this flexibility, the discoveries of the same person, on the same subject, will be
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very different at different times. If a person write his thoughts on a subject at different periods, the sentiments, the imagery, the composition, the order, will be far from being the very same. In some cases the difference is so great, as to show that different associating principles, at least very different modifications of the same principle, have been predominant at these different periods.

A TEMPORARY variation in the turn of a man's imagination, or in the form of his genius, sometimes arises from causes as far beyond the reach of our investigation, as many of those which produce an alteration in the constitution of the body, or of those which make one summer to differ from another. But such variation may often be accounted for from the influence which habit has upon the operations of fancy.

HABIT disposes men to be easily affected by a relation which they have for some time been accustomed to follow; and it often disposes them so strongly to this, as to make some other associating principle to prevail for a while, above that which is naturally predominant. To this effect of habit it is owing, that a man, by applying for some time to a subject which he could scarce force himself to
study

study at first, comes to enter into it with ease. From the same effect of habit, will arise a very great degree of that diversity which has been mentioned, in the productions of one man on the same subject.

HABIT may contribute to this diversity in another way, and that even without making any alteration in the predominant principle of association. Habit makes such ideas as are at the time most familiar to us, rush more readily into the mind, than such as are less familiar, though these latter be equally or even more strongly related to the present perception. Many causes render different ideas most familiar to a person at different times : and as a perception may be connected, by means of any one associating quality, with a thousand others, that perception will naturally suggest any of these which is at present most familiar, provided it be connected with it by the relation which has greatest influence on that particular person. Other ideas may be more strongly connected with it by the same relation, and would be more readily suggested to a person who was not under the power of that habit ; but with this person, the familiarity of the former idea gains it the preference to all others. When on the first concep-
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tion of a subject, certain ideas belonging to it occur in this manner, by reason of their familiarity to us, they lead us to such other ideas as have the strongest relation to them. But if the ideas which were first suggested, had been different, they would have led us, by the same principles, into a very different train of thinking, and the whole work would have born a very dissimilar aspect. Thus when a person sets out from a place where several roads terminate, a very few steps decide which of them he takes ; and by going on in it, he arrives at a place very distant from that to which he should have been brought by another of the roads issuing from the same point.

THIS flexibility of imagination takes place in all men, in some degree ; but it takes place in some men, in a much greater degree than in others. No man has an imagination so dull, or an imagination so invariably fixt in one form, as to be nowise affected by habit or other occasional causes : but there are two sorts of persons, who are disposed to be most affected by these. First, they whose genius is not very great, nor strongly marked with any peculiarity. It is on this account easily turned out of its direction by accidental causes, and eagerly lays hold of the assistance which may
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be derived from their operation. Secondly, they whose genius is uncommonly strong and lively. In these the same effect is produced by a very different cause: the vigour and activity of their associating powers, bestows great delicacy and sensibility upon their imaginations, and renders them susceptible of strong impressions from any temporary causes; they feel the force of every such cause, and receive a transient form or tincture from it. The productions of these two different sorts of persons, bear marks of the different causes from which the flexibility of their fancies springs. The works of the former have no common character, but are almost as unlike to one another as to the works of a different person; but through all the works of the latter, notwithstanding their varieties, there runs a certain peculiarity, which shows that they had the same author.

It has been often observed, that the different works of men of genius sometimes differ very much in the degree of their perfection. This may sometimes arise from the subjects not being equally adapted to their abilities. But in many cases it happens, that a person will at one time very successfully prosecute a subject which he has often attempted

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in vain before, or accomplish a discovery by accident, which has eluded many professed investigations. This may frequently be accounted for from the principles just now established. Habit, or some other incidental cause, gives the fancy at one time a turn, which we do not reflect upon, but which prepares it for attaining a certain discovery; and that either by rendering an idea familiar, which is subservient to that discovery, or by disposing it to follow the relation which leads most naturally to the discovery. At another time, the same cause gives the mind so strong a propensity to attend to an idea, or to follow a relation which draws us off from the proper track, and obstructs the invention, that no efforts can conquer it. When the appearance arises not from this cause, it may often be ascribed to the inequalities which are incident to the vigour of genius in the same man at different times, and which may be in some measure accounted for from the observations that have been formerly made. Though the principles of association be never perhaps entirely dormant or impotent, yet they are not, in any any man, alike prone to exert themselves, or fit for acting with the same force, at all seasons. Sometimes they are active, and ready to run
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from any idea that occurs, through a long train of other ideas related to it, without a possibility of our resisting their influence, or cooling the ardour which their activity inspires. When the imagination is in this state, and is at the same time impressed with a strong view of a particular end, genius is extensive and vigorous, and can with ease perfect inventions, as by a lucky and unaccountable hit, in pursuing which it has formerly toiled in vain. To produce this vigour and alertness of invention, it is necessary that there be some present perception connected with many others, from which it may set out; that the associating principle to which that connexion corresponds, be strong; that the mind be not deeply engaged in any other train of thinking which would lead off from this track; and that we have a strong association of the design. If any of these conditions be wanting, that alertness will be obstructed. It sometimes is obstructed to a very great degree; fancy is depressed, the power of association seems to be suspended, or if it at all exert itself, it is only in trifling, unmeaning excursions; it is too feeble to keep the design in view, and is continually allowing us to quit the road which would lead us forward to a valuable

valuable invention. While this debility of imagination continues, it throws genius into a state of languor. It enters on its work without sufficient ardour ; it is sluggish, and can make no progress in it ; it suggests no ideas, or but few that are conducive to its intention ; and all our efforts to exert it are unsuccessful. We cannot call up ideas, as it were, by name, we can only cast ourselves into the roads in which they are likeliest to occur ; and if fancy be not powerful enough to bring them into view, we must remain without them. This accounts, in a great measure, for the common observation, that most useful inventions have been made by accident, often when men were in search of something else. This shows us likewise, why the greatest geniuses sometimes sink below themselves, and fail in undertakings in which at another time they would have easily succeeded. It is as impossible, during these unfavourable turns of genius, to supply its defects by application, as it is for application to produce genius in those who naturally want it. The force and splendour of imagination throw a lustre on the productions of real genius, which renders them easily distinguishable from the lifeless and insipid productions of unanimated industry.

Diligence

Diligence and acquired abilities may assist or improve genius, but it is only a vigorous imagination that can produce it. Whenever mere labour is substituted in the place of this, it can but mimic genius : the work will always bear evident traces of unnatural force and awkward straining.

THE flexibility of the human imagination appears not only in a person's attempts on the same subject : in some men's efforts on different subjects, it appears very remarkably. There are men in whom one associating principle seems to be predominant when they are engaged in some subjects, and a totally different principle when they apply to subjects of another kind. Whatever be their present subject, their minds adapt themselves in an instant to it, and are prepared to yield themselves wholly up to those relations which belong to that subject, and by means of which discoveries may be made in it. It is not easy to explain all the causes from which this sort of flexibility arises ; perhaps it is in some measure unaccountable : but there is one cause to which it is often owing. Every work in which genius can be employed, has a particular design or end. True genius always fits a man for forming a lively and permanent

conception of the design, such a conception of it as may make all his thoughts to move in subservience to it. An uncommon vigour and delicacy of the associating principles will enable a man to conceive many dissimilar designs, with all the vivacity which is requisite for making any one of them dwell on the imagination. Its nature gives a temporary bent to the mind. It infuses great activity into those associating principles, by our following of which it may be promoted. These principles are not, perhaps, naturally predominant in the person; the perception of a different design would have rendered a quite different principle predominant: but these have naturally so great a degree of strength, that, with the assistance which they receive from the design, they can be made to prevail, and to regulate, for some time, all the exertions of the imagination. In some men, a capacity of being strongly affected with the view of any particular design, and a pliancy of fancy consequent on this, are so great, that their genius seems to be almost equally adapted to the most opposite subjects. There have been persons who were at once inventors in matters of science, and originals in the arts. In mimics this pliancy of fancy appears in a very great

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degree,

degree, though it be employed in an inferior province. Wherever it is possessed, a person's thoughts are wholly moulded by the present design; he loses sight of himself, and is perfectly transformed into the character which he wants to assume. Thus as a fitness for being strongly impressed by a design, bestows regularity on genius, so a capacity of being equally impressed by dissimilar designs, gives a great variety and compass to the genius of a particular person.

WE have now endeavoured to discover the sources of the varieties of genius, so far as they lie in the peculiarities of the imagination. If none of the associating principles be strong, there can be no genius. If one be remarkably vigorous in comparison with the rest, genius will be fixt to one sort of subjects suited to that principle. If all of them be very vigorous, the perception of a particular design will have force enough to give any one of them a temporary prevalence; and by this means genius will have great compass, its exertions will be susceptible of great variety. In proportion to the degree of variety of which genius is thus susceptible, it will approach the nearer to universality.

BUT

BUT though the varieties which belong to imagination, evidently produce many diversities of genius, we shall never be able to account for all its diversities by attending only to the imagination; for imagination alone is not sufficient for compleating any work of genius. In all its perfect exertions, it derives aid from other faculties, the varieties of which must contribute somewhat to the several forms which it assumes. The faculties from which imagination receives assistance, are sense, memory, and judgment. An enquiry into the varieties of which the first of these is capable, would give us little light: the varieties incident to the two last, it will be of importance to examine. The varieties of memory bear the nearest analogy to those of imagination, and for that reason it will be natural first to explain them.

S E C T. IX.

Of the Varieties of Memory, and their Influence on Genius,

MEMORY is employed either in retaining single perceptions, or in preserving the order and connexion of different perceptions. It is susceptible of considerable varieties in respect of both these exertions.

EVERY perception retained by memory, decays by length of time. As distant objects look fainter and smaller to the eye, and as distant sounds strike the ear more feebly, than such as are near; so the remembrance of things past grows weaker in proportion to the time which has elapsed since they were present; and at last every trace of them is obliterated. But some perceptions decay much more slowly than others. While one perception is forgotten as soon as it is received, the remembrance of another is firm and permanent for many years. The general principles on which the permanence of remembrance depends, are very simple.

It may be established as a principle, that those perceptions are most firmly and permanently remembered, which were strongest at first. A strong perception, like a deep shade of colouring, seems to decay more slowly than one that is faint and delicate; and though it should decay as fast, it would be longer before it were effaced. The particular cases reducible to this general principle, are very numerous; and they are all experiments serving to confirm it. They are chiefly the following.

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THE perceptions of sense are always stronger than any ideas which we can form ; and accordingly what we have perceived by our senses, is better remembered than what we have only heard or read of. The perceptions of some of the senses, are stronger and more striking than those of other senses ; and in consequence of that they fix themselves more durably in the memory. Of all our perceptions, pleasure and pain are those which affect us most deeply ; and the objects which produce them, lay fastest hold of the memory : we often hear men give it as a reason for their never being able to forget one thing, that it affected them much ; and give it as a reason for their having no remembrance of another thing, that it did not at all interest them. (*a*)

SOME degree of attention is necessary for our perceiving objects at all ; sounds often strike the ear without being heard, things are often full in our view without being seen ; the whole attention of the soul is otherwise engaged. By bestowing attention, the mind as it were embraces the objects exhibited to it,

(*a*) *Siquas res in vita videmus parvas, usitatas, quotidianas, eas meminisse non solemus : propterea quod nulla nisi nova, aut admirabili re commovetur animus. At si quid videmus aut audimus egregie turpe, aut honestum, inusitatum, magnum, incredibile, ridiculum, id diu meminisse consuevimus. Ad Heren. lib. iii.*

and lays itself open to a strong impressi^on from them, which makes them both affect it much while they are present, and keep firm possession of the memory afterwards. The length of time for which attention is bestowed, as well as the closeness of the attention, renders our perception of an object the stronger; and it renders the remembrance of it proportionably the more lasting (*b*). In like manner, by returning often to the contemplation of an object, we learn to conceive it vigorously, and the remembrance of it becomes clear and permanent: a perception which has seldom affected the senses, is quickly obliterated from the memory; light and colours are totally forgotten by those who have early lost their sight: but such perceptions as are repeated every day, never quit their hold of the memory; by the attention bestowed upon them as often as they recur, they are preserved in their original strength, without finding time even to begin to decay.

It is observed, that every thing is well remembered, which is impressed on the mind

(*b*) Nec dubium est, quin plurimum in hac parte valeat mentis intentio, et velut acies luminum a prospectu rerum quas intuetur, non averfa. Unde accidit, ut quæ per plures dies scribimus ediscendi causa, cogitatione ipsa contineat,
QUINT. Inst. Orat. lib. xi. cap. 2.

when free and disengaged (*c*). This is one of the circumstances which render the morning favourable to study (*d*). On this account we retain through life, what we learn in childhood and early youth (*e*). When the mind is already occupied by one object, an effort is necessary to draw it off from that object; this effort weakens the application with which we attend to the succeeding object: the former object still attracts some part of our attention, and thus farther weakens our conception of the other. But a disengaged mind bestows its whole attention on the object that is presented to it, and conceives it with great vivacity. Thus also, a thing is well remembered, when the mind is, for some time after having perceived it, occupied by no new object (*f*): in this case there is room for continued, as well as close, attention, which strengthens the impression on the senses, and, in conse-

(*c*) Plurimum conferre—animus cogitationibus aliis liberum. *QUINT. Inst. Orat. lib. xi. cap. 2.*

(*d*) Καθ' ὅσον καὶ μνημονεύομεν μᾶλλον, ὅς τις ἀν' ἑωθεν πρῶτον ἐντυγχάνωμεν ἔπειτα πρῶτης τῆς ἡμέρας, οὐκ ἔτι ὁμοίως διὰ τὰ πολλοὺς ἐπιτυγχάνει. *ΑΡΙΣΤΟΤ. προβλημ. λ. ε.*

(*e*) Quæ acciderunt in pueritia, meminimus optime sæpe. *Ad Heren. lib. iii.*

(*f*) Aliæ instantiæ dabunt hanc alteram speciem; ut quæ maxime imprimuntur a mente pura, et minus præoccupata ante vel post; veluti quæ discuntur in pueritia, aut quæ commentamur ante somnum, etiam primæ quæque rerum vices; magis hæreant in memoria. *VERULAM. Nov. Org. lib. II. aph. 26.*

quence of that, upon the memory. Pre-expectation likewise renders the remembrance of an object durable : it rouses the attention, it puts the mind in a proper disposition for bestowing attention, it invigorates our conception of the object (*g*). It is from experience of these effects of pre-expectation, that persons who wish us to be much affected with what they communicate, raise our curiosity, delay satisfying it, and render us as impatient as they can.

ONCE more, we remember that best, which we understand most perfectly. What we understand, strikes us with its whole force : of what we understand imperfectly, it is only the part understood, that makes any impression on us ; of the rest we have no perception : even that part makes but a faint impression ; it would acquire additional force from its connexion with the other parts, if the whole were understood.

IN all these instances it appears, that perceptions originally strong, are most firmly remembered.

(*g*) *Aliæ denique instantiæ dabunt hanc alteram speciem ; ut quæ expectantur, et attentionem excitant, melius hæreant, quam quæ prætervolant. Itaque si scriptum aliquod viciis perlegeris, non tam facile illud memoriter disces, quam si illud legas decies, tentando interim illud recitare, et ubi deficit memoria, inspiciendo librum. VERULAM. Ibid.*

MEMORY preserves the order and connexion of perceptions, as well as the perceptions themselves. If it did not, we could retain only simple perceptions. Every complex object consists of several parts united together in a certain manner; memory retains not only all the parts, but also the manner in which they are united. It retains the latter so firmly, that we do not naturally attend to the distinction of the parts which compose a whole. It is almost only the philosopher that thinks of enumerating them; and in order to enumerate them, he must set himself purposely to analyse and decompose his idea of the whole. Different wholes are connected in nature by various relations; these relations are observed when the things are exhibited to our senses; and the real observed relations of things are retained by the memory. As it is by co-existence, that the parts of the same whole are united, so it is by vicinity, causation, and order, that different wholes are connected in nature, and, in consequence of the observation of this, afterwards tied together in the memory.

IN every case of strong and exact remembrance, we have a clear perception of the connexions of things, as well as of the things them-

themselves. Things which are in the memory together, do not lie in confusion, but form distinct images, and are beheld in their just proportions. It is this property of memory, that enables imagination to introduce into its works, entire scenes of real history, or large parts of nature, which we have actually observed. The introduction of these not only assists the operation of imagination; and lessens its labour, but likewise contributes to the excellence of its productions. Shakespeare's description of Dover cliff, may serve as an example of the advantage to which genius can turn this exercise of memory;

Come on, Sir, here's the place—stand still. How
fearful

And dizzy 'tis, to cast one's eyes so low!
The crows and choughs, that wing the mid-way air,
Show scarce so gross as beetles. Half-way down
Hangs one that gathers samphire; dreadful trade!
Methinks he seems no bigger than his head.
The fishermen that walk upon the beach
Appear like mice; and yond tall anchoring bark,
Diminished to her cock; her cock a buoy
Almost too small for sight. The murmuring surge
That on th' unnumbered idle pebbles chafes,
Cannot be heard so high (*b*).

(*b*) *King Lear*, act 4. scene 6.

Many

Many descriptions and relations which are introduced into poetry, as if they were the creation of fancy, are really copied from memory. To have recourse, in this manner, to memory, contributes greatly to bestow richness and variety on the works of genius: for no imagination has force enough to diversify scenes feigned by itself, in so great a degree as objects and events are diversified in nature. Some painters, instead of imitating nature, draw almost all their figures from a general idea which they have formed to themselves. The consequence is, that a sameness runs through all their works; they represent not that endless variety which attention to nature would have suggested to them. Anthony Tempesta and Peter Testa are taken notice of as faulty in this way. On the other hand, it is observed that attention to the real varieties of nature, has introduced great variety into the works of Salvator Rosa, except in one particular, the legs of his figures, which are copied not from nature, but from an idea of his own, and which for this reason, though well drawn, are too similar.

THUS memory, by retaining the real connexions of things, gives us a distinct and entire perception of these things, when they are
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all actually present to our view. But it must be remarked further, That when one of the things only is in view, the rest may be brought to our remembrance, by means of their connexion with it, preserved by memory. When we think of one part of a machine, it suggests the other parts, and the form of the whole. When we think of one object in a complex scene, it brings the rest into our view. When memory presents one event, this leads us to think of the other events which were connected with it, and to conceive them in their proper order. The remembrance of many periods of a discourse or of a great number of verses, is often revived by the single word with which they begin (*i*). Thus ideas are introduced by others with which they are connected in the memory, in the very same manner as it has been already shown that they are introduced by those with which they are associated in the imagination. It is observable too that the connexions retained by memory, are the same with some of the relations by which ideas are associated in the imagination. On these accounts, the exertions of these two faculties are often very analogous, and some-

(i) Nam etiam excidentis, unius admonitione verbi in memoriam reponuntur. *QUINT. Inst. Orat.* lib. xi. cap. 2.

times not distinguishable except by the person himself. When things are connected in the mind by vicinity, co-existence, causation, or order, in the manner in which we have actually observed them, and when at the same time we have a conviction of our having observed them thus connected, the exhibition not only of the things themselves, but also of their connexions, is properly ascribed to memory. When these relations are bestowed upon things to which they may belong, but which we have never actually observed united by them; when at least we have forgotten that we had observed the things placed in these relations; or when we join things together, not by these relations, but on account of their resemblance or their contrariety; in all these cases, things are properly said to be associated in the imagination, not conjoined in the memory. For example, when a person gives a minute description of a country which he has lately seen, or relates a series of events which he has witnessed or learned from history, the whole is owing to the exercise of memory; imagination has no share in it. If he illustrate any part of his recital by a comparison with resembling objects, or enliven it by contrasts; or if he have forgotten part of the objects,

jects,

jects, and supply the defect which this would occasion in his story, by putting in such circumstances as are consistent with the other parts; then he exercises imagination as really, though not in so great a degree, as he who contrives any of the imaginary trains of events or scenes of action, which are common with poets and writers of romance.

As the exertions of memory retaining the connexions of things, and the exertions of imagination, are thus analogous, so it is farther observable, that they are almost always necessarily intermingled. Sometimes imagination takes the lead, and memory acts in subordination to it: how far, and in what ways, was explained formerly (*k*). Let us now take notice, in what manner imagination is exercised when it acts in subordination to memory. In exhibiting any one thing which we have observed, or a number of things in their observed order, memory alone is exerted. But from these we often pass to other things, connected with them not by an order really observed, but by some other ties: in this case the transition is made by the imagination. The things to which this transition is made, are distinctly remembered; and

(*k*) Part I. sect. 5.

while we dwell on them, memory is the only faculty employed in conceiving them. It is when we leave these, and pass to others not connected with them in our experience, that imagination is again exerted. We never can have a long train of thoughts, or carry on a long conversation, even relating to the merest matters of fact, wholly by the suggestions of memory, without any aid from imagination. If this faculty did not interpose, and give us a new impulse, our thoughts would quickly stagnate, our conversation would fail, we should be strictly confined to one subject, at least to such groupes of objects and such successive events, as we have observed really conjoined in nature. Thus, as it was formerly shown on the one hand, that memory assists imagination in all works of genius, so on the other hand memory receives great assistance from imagination, in most of its operations. What has been said on this point, will enable us in some measure to conceive, how imagination, and consequently genius, enters into a species of composition from which many have totally excluded it, the writing of history. By what has been said, we are led likewise to make a remark which regards genius of every kind, That our remembrance
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of the real connexions of things, multiplies the ties by which ideas are united in our minds ; and consequently multiplies both the roads by which we may be led to the conception of such ideas as we have occasion for, and the combinations into which the relations of ideas may be formed : and how much these circumstances contribute both to the compass and to the variety of genius, has been sufficiently explained already.

THE fitness which both the connexions of things retained by memory and their relations in the imagination, have for causing one bring others into our view, contributes much to the strength and perfection of remembrance. Without this, the exercise of memory would be much more difficult than it is : for our remembering any series of thoughts, it would be necessary to impress them *all* vigorously on the mind ; if any of them were faint, it would necessarily be forgotten. But because one idea introduces others connected with it, we may sometimes remember many, by gaining a strong perception of a few : the relation of the many to the few, will be sufficient for calling them to mind, though they themselves be but weakly remembered.

NAY farther ; one perception may become strong by being connected with another. This observation is necessary for giving the just extent to a principle formerly laid down, That the firmness with which separate objects are remembered, is in proportion to the strength of our original perceptions of these objects. This principle will appear liable to many exceptions, if it be not remarked, that though a perception was not itself strong at first, yet if it was connected with a strong perception, it is well remembered by means of that connexion. A strong perception communicates strength to other perceptions connected with it ; and in consequence of this communication, they imprint themselves as deeply on the memory as if they had had inherent strength. Besides, the strong perception will frequently recur to our view ; and as often as it occurs, it will readily suggest such as are connected with it ; it will communicate strength to them, and make them to be conceived with force and vivacity. On this account also, if the idea of an object comes, at any of its appearances in the memory, to be connected with another that is strong, it will derive strength from this latter, and in consequence of this be vigorously re-

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remembered,

membered, though the objects had no connexion when they were originally perceived by the senses. The truth of these observations appears in many instances. It was to assist the introduction of ideas by the force of sensible signs, that the ancient orators used images in the artificial memory (*l*). We often hear persons assign as a reason for their retaining a thing strongly, some affecting peculiarity in their circumstances when they first became acquainted with it, which has united itself inseparably to it, and rendered it impossible for them to forget it. We sometimes want a person to recollect a particular occurrence; we affirm again and again that he was present at it; but he can remember nothing of it: we mention something which happened at the same time, or was otherwise connected with it; he remembers this dis-

(*l*) Vidit autem hoc prudenter sive Simonides, sive alius quis invenit, ea maxime animis effingi nostris, quæ essent a sensu tradita, atque impressa: acerrimum autem ex omnibus nostris sensibus esse sensum videndi: quare facillime animo teneri posse ea, quæ perciperentur auribus, aut cogitatione, si etiam oculorum commendatione animis traderentur, ut res cæcas, et ab adspæctus judicio remotas, conformatio quædam, et imago, et figura ita notaret, ut ea quæ cogitando completi non possemus, intuendo quasi teneremus. *Cic. de Oratore, lib. ii.* Aliæ autem instantiæ dabunt hanc alteram speciem; ut quicquid deducat intellectuale ad feriendum sensum (quæ ratio etiam præcipue viget in artificiali memoria) juvet memoriam. *VERULAM. Nov. Org. Ibid.* See also, *De Augm. Scientiarum*, lib. v. cap. 5.

tinctly;

tingly ; the remembrance of it revives his remembrance of that occurrence, bestows vivacity upon it, and renders it clearly perceptible. If we have a high sense of the importance of any subject, that sense makes every thing related to this subject, to be strongly remembered. The reason and the efficacy of punishments depend very much on the principle now under consideration ; the remembrance of the pain or shame preserves the remembrance of the fault, and by constantly attending it, produces constant aversion to the repetition of the fault, and care to avoid it. We do not easily forget any thing related to a person whom we love. What excites desire, admiration, joy, fear, sorrow, or in general any strong passion, is firmly remembered ; the passion communicates force both to the sensation and to the idea of the object by which it was excited (*m*).

WE are not always wholly passive in the exercise of memory ; we can make efforts to remember what does not cast up to us readily and of its own accord. This voluntary exertion of memory, is called *recollection*. As

(*m*) Aliæ instantiæ dabunt hanc alteram speciem ; ut quæ faciunt impressionem in affectu forti, incutientes scilicet metum, admirationem, pudorem, delectationem, juvent memoriam. VERULAM. *Nov. Org.* Ibid.

remembrance is assisted by the relations of things, so recollection is altogether owing to them. It would be absolutely impossible, if there were not such a connexion among our ideas, as enables one of them when excited, to bring another into view. We cannot call up an idea *directly* by an act of the will. We cannot will to raise that particular idea which we want; for this would imply that we conceived it already, and needed not to raise it by a volition: and if we have not already conceived it, we will to raise we know not what idea. It is only *indirectly* that we raise an idea by a volition. The idea which we want, has some relations to certain others; these others, with the relations which they bear to that, may be in our view; we can voluntarily set out from these, and pursue the several relations which belong to them, till we fall upon that relation which leads to the idea wanted. The least reflection on what passes in our own minds, will convince us that this is the very way which we take in recollecting. We are just like persons in search of something which they have lost, they know not precisely where: but by their knowing the place where they first missed it, by their recollecting when they last had it, by
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their remembering all the places they have been in since, and by their thinking what might be the occasion of their losing it, their search is reduced within some bounds, and they have some direction in it, whereas otherwise they had been obliged to seek for it at perfect random. In the same manner, in consequence of the connexion which subsists among different ideas, we may have a sort of anticipation of one which is not yet present to the mind, a notion of some relation which it bears to another that is present; and by that notion we are in the proper track for finding it, and following this track are quickly led to it. Hence verses are not only more easily committed to memory, than prose, but also more readily recollected: when we are at a loss about a word, we know before-hand that it must be such as will agree not only with the sense but also with the measure. Hence order and a regular distribution is a great assistance in recollecting a discourse: if a particular period occur not readily, we know at least that it must be such as suits a certain part of the plan (*n*). It was on this principle

(*n*) Verum et in his quæ scripsimus, complectendis, multum valent, et in iis quæ cogitamus, continendis, prope solæ (excepta quæ potissima est, exercitatione) divisio et compositio. Nam qui recte divideret, nunquam poterit in rerum ordine er-

that the ancients introduced *places* into their contrivance of an artificial memory : the orator had this advantage for recollecting any part of his oration, that he knew it to be what he had referred to a particular place (*o*). As an idea is recollected only by our follow-

rare.——Etiam quæ bene composita erunt, memoriam serie sua ducent. Nam sicut facilius versus ediscimus, quam prosam orationem, ita prosam victam, quam dissolutam. *QUINT. Inst. Orat. lib. xi. cap. 2.*

(*o*) Invenisse fertur (Simonides) ordinem esse maxime, qui memoriæ lumen afferret. Itaque iis, qui hanc partem ingenii exercerent, locos esse capiendos, et ea quæ memoria tenere vellent, effingenda animo, atque in his locis collocanda : sic fore, ut ordinem rerum, locorum ordo conservaret. *CIC. de Oratore, lib. ii.* Ex hoc Simonidis facto notatum videtur, juvari memoriam signatis animo sedibus, idque credere suo quisque experimento. Nam cum in loca aliqua post tempus reversi sumus, non ipsa agnoscimus tantum, sed etiam quæ in his fecerimus reminiscimur, personæque subeunt, nonnunquam tacitæ quoque cogitationes in mentem revertuntur. *QUINT. Inst. Orat. lib. xi. cap. 2.* Instantiæ constitutivæ sunt ; ordo, sive distributio, quæ manifesto juvat memoriam. Item loci in memoria artificiali :——Hujusmodi autem loci memoriam insigniter juvant, eamque longe supra vires naturales exaltant. Item carmina facilius hærent, et discuntur memoriter, quam prosa. Atque ex isto manipulo trium instantiarum, videlicet ordinis, locorum artificialis memoriæ, et versuum, constituitur species una auxilii ad memoriam. Species autem illa, *abscissio infiniti* recte vocari possit. Cum enim quis aliquid reminisci aut revocare in memoriam nititur ; si nullam prænotionem habeat, aut perceptionem ejus quod quærit, quærit certe et molitur, et hac illac discurrit, tanquam in infinito. Quod si certam aliquam prænotionem habeat, statim abscinditur infinitum, et fit discursus memoriæ magis in vicino. In tribus autem illis instantiis quæ superius dictæ sunt, prænotio perspicua est et certa. In prima videlicet, debet esse aliquid quod congruat cum ordine : in secunda debet esse imago, quæ relationem aliquam habeat, sive convenientiam ad illa loca certa : in tertia debent esse verba, quæ cadant in versum : atque ita abscinditur infinitum. *VERULAM. Nov. Org. Ibid. De Augm. Scient. lib. v. cap. 5.*

ing some relation which we know that it bears to another, it is evident that its bearing several different relations to that other, will facilitate our recollection of it. Any one of these relations may conduct us to it ; and we may light upon one of them when we have missed another. We often remember a discourse, when we have forgotten the speaker ; if we retain but a few circumstances of the time and place, these may lead us equally to several persons, among whom we cannot distinguish the real speaker : but if we retain a great number of circumstances, as the tone of voice and the manner in which it was told, the number, situation, and other circumstances of the company, some or other of these will lead us to ascertain the very speaker. All the circumstances together will lead us to recollect the idea which we want, both more quickly and more strongly than one or a few of them could have done ; they will draw it into the mind with a sort of impetuosity, which at once accelerates its motion, and enables it to strike us with greater force : for in the exercise of memory, as well as in the exertions of imagination, several relations operating together, act with a compound

force (*p*). At the same time, the greater the number of circumstances are, the stronger is the conviction attending our recollection, and the more absolute the certainty of our being in the right. What has been said concerning recollection, is fully illustrated by the following example:

Sir Charles. Who was that other?

Lord Morelove. One of my Lord *Foppington's* gang, the pert coxcomb that's just come to a small estate, and a great periwig—he that sings himself among the women—What d'ye call him?—he won't speak to a commoner when a lord's in company.—You always see him with a cane dangling at his button, his breast open, no gloves, one eye tucked under his hat, and a tooth-pick—*Startup*, that's his name (*q*).

Thus those connexions of ideas which cause them to succeed one another of their own accord in a regular train, subject this train, at the same time, to the power of the will in a certain degree, and enable us to alter it, in many instances, at our pleasure.

(*p*) *Alia instantia dabunt hanc alteram speciem; ut multitudo circumstantiarum, sive ansarum, juvet memoriam; veluti scriptio per partes non continuatas, lectio sive recitatio voce alta. Ibid.*

(*q*) *Careless Husband*, act 1,

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THE voluntary exertion of the memory in recollection, is very analogous to the exercise of imagination in producing a work of genius; for in this exercise, as well as in that exertion, the will has always some concern: it determines the subject, and it is continually employed in choosing the proper tracts of thought. If it were not employed in this, genius must go on like a mere machine, and a person should have no power over it after it were once set in motion. In what manner the will mixes itself with the operations of the imagination, and influences them, may be understood from the account of recollection, which we have now given. Recollection, and the voluntary exercise of imagination, differ chiefly in two things. First, in the end proposed. We properly recollect, when all that we desire, is to recal to memory something which we have observed: and in recalling it, we are often assisted by fancy; for we may be led to it, not only by its observed connexions with other things, but also by any relations to them, which imagination has bestowed. We voluntarily exert imagination, when our intention is, merely to gather together such ideas as suit our present work; and in gathering them together, real connexions preserved

preserved by memory, are often of great service to us. Secondly, when we properly recollect ideas, they are no sooner brought into our view, than we have a conviction that either they themselves, or the objects from which they are derived, have been formerly perceived by us; and that conviction is attended to by the mind: when the ideas are brought into view by the imagination, either we have no such conviction, or we take no notice of it. These two, recollection and the exercise of imagination, are conjoined in producing every work of genius, but not equally in works of all kinds, nor in the genius of all persons.

THE observations which we have hitherto made, regard the different operations in which memory is exerted; and they show the influence which these several operations have upon genius. But there are likewise differences of another sort incident to memory, such as affect all its operations, and produce varieties in its form and power. All these differences may be explained from the principles already laid down, either from those which regard separate thoughts, or from those which regard their connexions, or from both together. By considering the most remarkable of these differences, those principles will be farther confirmed

firmed and illustrated, and some additional observations concerning genius, will be suggested.

THE memory of the same person is not equally perfect in all the periods of his life. Memory is weak in very young children, and in very old men; but the weakness proceeds from dissimilar causes. The former are not capable either of bestowing so close attention upon things, or of comprehending them so perfectly, as would be necessary for their making a strong or lasting impression on the memory. In the latter, all the powers of perception are become dull, nothing can strike them so deeply as to infix itself in the memory. That this is the real cause of the decay of memory by age, is evident from the common remark, that old persons forget what happened yesterday, but remember distinctly what occurred many years ago: could recent events affect their deadened organs with equal force, their remembrance of them would be equally tenacious (*r*). In the former part of youth, memory is very firm: many causes then concur to make all our perceptions strong, and consequently durable; the mind is not

(*r*) Διὸ, οἱ τε σφόδρα νέοι καὶ οἱ γέροντες, ἀμνημονέες εἰσι. θέουσι γὰρ, ἢ μὲν, διὰ τὴν αὐξάνειν, οἱ δὲ, διὰ τὴν φθίσιν. ΑΡΙΣΤΟΤ. περὶ μνήμης.

pre-occupied ; the spirits are lively ; curiosity is high ; every thing being new, strikes with its full force ; admiration is easily raised, and all the passions strong, and fit for communicating vigour to the perceptions which occasion them. In the age of maturity, many of these causes of strong remembrance cease : but their place is in a considerable degree supplied by others ; things are more perfectly understood ; the connexions of perceptions are more fully perceived ; and memory is improved by habit. It is in youth and maturity, that genius exerts itself with greatest power : in childhood it has scarce begun to dawn ; in old age it sinks into a glimmering twilight. Were it only on account of the assistance from memory of which it stands in need, it must be in some measure subject to these changes. But this is not the only or the principal cause of its being subject to them ; the powers on which it has a more immediate and essential dependence, are subject to the same changes. It is a general law of our nature, that all our faculties rise gradually to their perfection, and gradually decline.

MEMORY admits much greater varieties in different persons, varieties both in degree and in kind,

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THERE are chiefly four perfections of which memory is capable. These are rarely united in the same person ; and the prevalence of one of them, or the manner and degree in which they are united, produces very great diversities in the memories of different persons. Some of the perfections of memory arise from the strength with which separate perceptions are remembered, others from the ability of remembering their connexions firmly.—It is a perfection of memory to be *susceptible*, to receive an impression quickly : it is likewise a perfection of memory to be *tenacious* (s). Both these perfections arise chiefly from a fitness for remembering separate perceptions : but they do not always go together ; nay, they who commit a thing quickly to memory, generally forget it soonest. This may seem to contradict the maxim, that perceptions originally strong, are firmly remembered. But it is perfectly consistent with it. Because the impression is made quickly, it does not follow that it is strong : a susceptible memory, like a soft body, receives some impression at once, and because this impression is perceivable at once, we are at no pains to deepen it, we al-

(s) Ejus duplex virtus, facile percipere, et fideliter continere. QUINT. *Inst. Orat.* lib. i. cap. 4.

low it to continue flight: when the memory is, as it were, of a harder contexture, the impression is not made without continued labour, it is deep before it can be at all taken notice of, and therefore it is permanent (*t*). Sometimes these perfections are united: the memory is of such a happy temperature as may be compared to wax, which receives the seal easily and strongly when it is melted, and immediately hardens and suffers it not to be effaced. Of these two perfections, the former is in its nature and principles most congenial to genius; but the latter is at least equally subservient to its operations; for no perception can be suggested by fancy or applied to any purpose, except it be remembered.—It is a perfection of memory to be *distinct*, to exhibit things in their proper form and order: it is also a perfection to be *ready*, to call to mind easily and quickly such ideas as we have occasion for. Distinctness relates to such things as are in our view together; readiness, to such as make their appearance in succession. They are inseparable, and always take place almost in the same degree. They arise from the same

(*t*) Etiam illa prævelox fere cito effluit, et velut præsentis officio functa nihil in posterum debeat, tanquam dimissa discedit. Nec est mirum magis hæere animo, quæ diutius affixa sint. QUINT. *Inst. Orat.* lib. xi. cap. 2.

principle, from a natural aptitude to retain the relations of things. The memory cannot indeed be distinct, except the several separate perceptions be well retained; the omission of one part or member would destroy the harmony of the whole: but distinctness arises immediately from a lively remembrance of their connexions; if this were wanting, all the particulars would lie jumbled in confusion. It is, in like manner, when the connexions of things are strongly perceived, that some of them introduce others readily. If in some cases there be distinctness of remembrance without readiness of recollection, the defect in this latter virtue is owing to the weakness and inactivity of imagination, failing to exert itself at the proper time. In proportion to the degree in which these perfections of memory are possessed, they must render the energies of genius the more perfect, and likewise affect the form of its productions, so far as it employs in them materials borrowed from memory. Confusion in a work may proceed from indistinctness of remembrance, as well as from irregularity of imagination: not only feebleness of imagination, but also slowness of recollection, may render a work both laborious and meagre. Besides these defects, con-

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fusion and slowness, which are directly opposed to the excellences of memory now under consideration, there is an imperfection which bears a relation to both these excellences, which seems to resemble them, but in truth only mimics them ; I mean, the remembrance of things merely by rote, when a person can run over things exactly, in their observed order, and be certain of recollecting any part of them by thus running over them, but can remember nothing, if he be put out of that train. In this case, the separate perceptions are faintly impressed upon the mind, their experienced connexions strongly ; and these are the only connexions which influence it, the relations conferred by imagination have none ; the subject likewise is not clearly understood. These being the causes of this peculiarity of memory, it can seldom be found along with genius, or indeed with a great degree of any of the intellectual powers.

MEMORY admits likewise varieties in kind ; and these varieties tend more directly than any hitherto mentioned, to diversify the form of genius.

MANY causes were formerly pointed out, which may render perceptions strong and strongly remembered. Any one of these causes

may render any perception or class of perceptions strongest and most affecting to a particular person: by some or other of these causes, different perceptions will unavoidably be rendered strongest to different persons; and these will, by consequence, dwell most in the memory, and take the fastest hold of it. The objects of strong remembrance will thus be necessarily different in different men: and the difference of these will occasion a correspondent difference in the exertions of genius, and that with respect both to the perceptions from which it sets out, and to those which it afterwards collects.

FIRST, the peculiar turn of memory will affect genius, by determining, in many instances, the perception from which it sets out, in its investigations or its compositions. Every invention, it was already shown, takes its rise from some present perception, which suggests the other ideas necessary in the work. If that present perception be not actually subjected to the senses, it must be a perception exhibited by memory. Memory will most readily exhibit those perceptions which it retains strongly; for it is a never-failing effect of strong remembrance, to cause a perception occur often, and remain almost constantly in

our view, so that it cannot be banished without difficulty, sometimes not at all. But the present perception, which is thus often fixt by the peculiar cast of memory, determines genius to attach itself to such ideas as are connected with it, and to follow the road which they point out; and consequently it influences the whole series of the thoughts, and contributes not a little to the peculiar form which the work assumes. Several different perceptions being, by means of different principles, strongly remembered by the same person, will fit him for exercising his genius on different subjects: they will also lead him to works of different kinds; for in some sorts of perceptions one relation is more conspicuous and aptest to lay hold of the imagination, and in other sorts another relation; and our following one or the other, will produce a work of one species, or of a different species. The perceptions strongly remembered being much more various in different persons, than they can be in the same person, will produce a proportionably greater variety, both in the subjects which they choose for the exercise of genius, and in the species of works in which they engage.

SECONDLY,

SECONDLY, the particular things which are strongly remembered by a person, will directly influence the ideas introduced, as well as the perception from which he sets out. Imagination can exhibit only such ideas as a person has; ideas which he has lost, whatever is forgotten, cannot possibly be suggested, nor employed in any work of genius. By an incapacity of retaining certain sorts of ideas firmly, a man may be necessarily prevented from using materials which he once possessed, however fit they would have been for completing or adorning his work. The ideas to which his memory is adapted, compose the stock which he can employ. Besides, of the ideas which he retains, those which are retained most strongly, will recur oftenest to his view, and consequently will be most familiar to him. On this account they will occur and be employed by him, more readily than any others. Ideas by being strongly remembered, force themselves frequently into our view, and engage our attention, when there is no particular occasion to introduce them: undoubtedly then, when they are related to a subject on which we are exercising our genius, they will be suggested more readily, than other ideas equally, or even more nearly related to that subject,

but not so strongly fixt in our memory. Thus the whole complexion of a work is necessarily tinged by the kind of thoughts which the memory of the author is fitted to retain with greatest strength and clearness: and hence must arise very great diversity in the productions of different persons, even on the same subject; diversities proportioned to the number of ways in which the perceptions of memory may be strong, either in themselves, or by communication from those with which they are connected.

ALL the observed connexions of things lay hold of the memory in some degree; but they do not all equally lay hold of the memory of every man. One person's memory retains some connexions most strongly; another person's retains chiefly quite different connexions. One consequence of this is, that if two persons give an account of any object which they remember, their descriptions of it will be considerably different. Were they to introduce representations of that object into works of genius, there would be a correspondent dissimilitude between these representations. There would be a difference likewise in the uses to which they were applied; for by being put into different attitudes, the same object is adapted

adapted to different purposes. Another consequence is, that the memories of different persons are suited to different subjects. Some are especially ready in remembering reasonings, and such phenomena and processes in nature as are the proper subjects of reasoning; the connexions of things as causes and effects, make the strongest impression on their memory. Some retain most firmly the form and structure of natural bodies, or descriptions of them; their memory is chiefly affected by the co-existence of the parts. Others retain best, trains of events, or relations of them in history; vicinity, order, and that species of causation by which events depend on one another, are the connexions which suit their memory. Others are remarkable for easily remembering poetry; the relations of ideas which prevail in it, lay fastest hold on their memory: many of these relations are originally bestowed upon the parts solely by imagination; but after they are bestowed, and the work is read, they become observed connexions of the parts of that work, and are proper objects of memory. Those things which are peculiarly suitable to a person's memory, are generally those to which his understanding and his taste are most adapted. This suggests a

reason why they are peculiarly suitable to his memory : they are the subjects to which he can attend most easily and most closely, into which he can enter most deeply, and from which he receives the greatest pleasure ; they cannot therefore fail to make a strong and lasting impression on him. Their making such an impression on him, will necessarily have an influence on the turn of his genius. Every man will introduce into his works chiefly those subjects which he remembers best, if they can at all suit his purpose. Both the illustrations and the episodes of one poet, relate almost constantly to natural things ; those of another are generally taken from history, or consist of narration ; a third abounds on every occasion with moral sentiments, or runs out into philosophical speculations. The peculiar congruity of different connexions to different memories, contributes to produce variety of genius, in the same manner, though not in so great a degree, as the predominance of one associating principle ; for exertions of memory enter into every work of genius, though only in subordination to the exertions of imagination.

S E C T. X.

*Of the Varieties of Judgment, and their
Influence on Genius.*

IF we recollect, how constantly judgment attends imagination, and in how many ways it assists and regulates it, in all the exertions of genius, we cannot doubt that the diversities of which judgment is susceptible, will contribute greatly to the variety of genius observable among men. To investigate the several powers of judgment, and to ascertain the foundation of our several convictions and reasonings, is a principal subject in all treatises concerning human understanding; but it is our business to consider judgment only so far as its varieties affect the operations of genius.

WHEN in the analysis of genius we distinguish judgment from sense, memory, and imagination, we use the term in its most extensive signification. Taken in this extent, it is of two kinds, judgment of *truth*, and judgment of *beauty*. To the former, the name is most commonly appropriated: the latter is called *taste*.

TRUTH regards either real existence, or the relations of general ideas: judgment is exercised about both; and about each it is exercised in different ways, sometimes intuitively, at other times by reasoning, sometimes producing certainty, and at other times only probability. It includes all the intellectual faculties by which we distinguish truth from falsehood, embrace and assent to the one, and disbelieve and reject the other (*a*). Men differ either in the degree in which they possess the same species of judgment, or in the species of judgment which they are most prone to exercise, and exercise in greatest perfection.

THE faculties by which we perceive such truths as regard the relations of general ideas, are commonly known.

SELF-EVIDENT truths are perceived by *intuition*, which exerts itself in an infallible conviction that certain relations belong to the ideas compared, and cannot but belong to

(*a*) The author was led, many years ago, by the office which he then held, to enquire with some care, into the several modifications of judgment, the kinds of evidence correspondent to them, and the nature and degree of conviction produced by them. New light has been thrown on several branches of this subject, by Dr. Reid's ingenious *Inquiry*; and the whole of it has been illustrated with great perspicuity and elegance, in Dr. Beattie's *Essay on Truth*, Part I. The present design admits the consideration of this subject, only in one very confined point of view, as connected with the varieties of genius,

them; and this conviction arises on the mere comparison of the ideas themselves, without any reasoning. In all the proper subjects of intuition, we perceive the relation to be implied in the very nature of the ideas, so that it must appear the same to every being, capable of comparing them.

SUCH relations of ideas as are not self-evident, can be perceived only by *reason*. None but the *necessary* relations of ideas can be deduced by reason, merely by comparison of the ideas themselves; at least these are the only relations which can be in this way deduced with such certainty as to make it worth while to attempt deducing them. The reasoning by which such relations are deduced, is called demonstration. In order to our perceiving the force of a demonstration, we must perceive the truth of all the steps of which it consists. But it is not properly by an exertion of reason, that we perceive the truth of each separate step. Often the conviction is intuitive; as when in the course of a demonstration we assume the equality of two sides of a triangle, which are radii of the same circle. Even such propositions as have been formerly demonstrated, when they are applied in a subsequent demonstration, cannot in that case be
strictly

strictly ascribed to reason; for though it was reason that first produced a conviction of their truth, it is memory that retains, and either memory or imagination that presents, the conviction in the present case; and generally the conviction is presented alone, without the proofs to which it was originally owing. In order to our deducing a conclusion from a series of argumentation, it is necessary that we retain all the steps of that series; if any of them be forgotten, we cannot perceive the evidence of the conclusion; and it is by memory that they are retained. In consequence of all this, a conclusion is inferred from the whole argument: the inferring of this conclusion, and the production of a conviction of its truth, are the only exertions of reason, as distinguished from our other intellectual powers. Reason, so far as it is employed in demonstration, is that faculty by which we draw inferences from the comparison of our ideas, or obtain a conviction that a relation subsists between two ideas, by our having found that these bear certain relations to other ideas. This is an original faculty of the human mind. It is the more perfect, the more easily, the more quickly, and in the more instances we can infer conclusions by the comparison

rison of our ideas. It is possessed by different men in very different degrees of perfection. These doubtless are owing principally to an original diversity in the faculty of reason itself; but as it is attended and aided in all its exertions, by memory, and in some of them by imagination also, its varieties may arise in part from the degree of these latter powers which men possess, and from the particular modification of them which prevails. If a man's memory be remarkably turned for retaining the relations of ideas, and his imagination for suggesting them, this will assist him greatly in perceiving the connexion of the several steps of a demonstration, and in retaining them all, and will thus make his reason appear the more acute. But if his memory and fancy had been ill adapted to such subjects, he must, even with the same share of reason, have run a risk of being perplexed in pursuing a long train of argumentation.

THE existence and the connexions of real things, are the subjects of very many of our judgments. The exertions of understanding employed about them, are different from those which are employed about the relations of ideas, and likewise admit great variety. The existence of real things, and their connexions,

nexions, are perceived intuitively; they are inferred by an immediate judgment of Nature; they are deduced by a train of consequences; they are believed on the testimony of others: they are known with certainty; or they are assented to as probable in a greater or a less degree.

EVERY man is conscious of his own sensations, ideas, thoughts, passions, and the several operations of his own mind; and while he is conscious of them, he is convinced of their present existence. The judgment which produces this conviction, is implied in the very nature of consciousness, and complicated with every act of it. It is a judgment different in kind from our intuitive perception of the agreement or disagreement of two ideas which we compare; but it is equally immediate, equally unavoidable, and is even a prerequisite to that perception.

EVERY sensation, every idea, which a man has, every operation, every passion, of which he is conscious, suggests the notion of himself, and enables him, without any exercise of reason, without any information from experience, by a natural and inexplicable principle, to infer the existence of himself as the percipient and agent. The inference is immediate, and without any comparison of ideas;

ideas ; it is likewise indubitable, the original constitution of our nature will not allow us to call it in question.

WHENEVER we have a sensation by means of our bodily organs, we infer from it some quality in bodies, which is the cause or occasion of it. There is an inference : but it is made without any reasoning or comparison of ideas ; we can perceive no necessary connexion between the sensation and the quality inferred from it : the inference is made previous to experience : it is made by a judgment of nature ; our belief of it arises from an original and inexplicable principle of the mind, which determines us to it immediately and irresistibly.

WE remember our sensations, the qualities of bodies which they suggested, the passions and the operations of our minds. The remembrance of them implies a conviction of their past existence, which is, like those already mentioned, a judgment of nature, immediate, unavoidable, and indubitable, to which every man is determined by his constitution, and of which no other account can be given.

WE can compare the several objects about which the mind employs itself, whether they
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be its own operations, or the qualities of bodies ; the comparison suggests a great variety of connexions and relations belonging to them ; and about all these, judgment is exercised in many different ways.—It perceives the *resemblance* of some things, and the dissimilitude of others : it perceives both intuitively, and it perceives them on comparison of the things themselves or of their ideas. Should we miss forming the judgment immediately, we can never be brought to form it by argument ; we can only be led to bestow greater attention, that, by our becoming more perfectly acquainted with the objects, the intuitive faculty may exert itself to greater advantage.—When we compare some things together, we perceive their *contrariety* ; sometimes we perceive it intuitively, and sometimes experience of the things themselves, or of their causes, or of their consequences, is necessary for our forming the judgment.—When things possess any quality in common, judgment may be employed in deciding concerning the *degree* of that quality : the judgment is often intuitive ; it may however be aided by continued and repeated attention ; and it is sometimes produced by a mixture of experiment and reasoning. When experi-

ments are made for enlightening the judgment, they tend to exhibit the qualities more perfectly to the mind ; the reasoning that is introduced, regards the causes or the effects of the qualities compared, or serves for establishing their connexion with some phenomena which cast up in the course of the experiment, and from which their degrees may be inferred. A thermometer is employed for ascertaining the degrees of heat ; it shows immediately the degrees of expansion in the fluid ; and experience teaches us the constant connexion between these degrees and the degrees of heat.—Real things bear to one another, certain *proportions* in their quantity or their number : judgment is exercised about these ; sometimes it perceives them intuitively, and at other times it deduces them by various kinds of reasoning.—When we consider objects which have a continued existence, we perceive their *identity*, or we judge them to be different from, however similar to those which we had observed formerly. In this case, our judgment is sometimes intuitive, on our comparing the present object with our idea of that which we had before perceived ; and sometimes it is the result of reasoning. When it is intuitive, it is, generally

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at least, rather a judgment resolvable into our constitution, than a perception of necessary agreement or disagreement: when it is the result of reasoning, the reasoning is founded on our experience of the ordinary duration of the several kinds of things, of the changes which they are capable of undergoing, and of other circumstances relating to themselves and their causes.—Things have different relations in *time* and *place*: judgment cannot discover these by a mere comparison of the things, but by experience and observation.—It is in the same way, that we judge concerning the co-existence of qualities: we can perceive intuitively that some qualities are inconsistent or incapable of being co-existent; in some few cases also, one quality implies another, so that their co-existence is self-evident, as figure and extension are inseparable: but in most cases, even after experience has shown that certain qualities are actually co-existent, we can find out no necessary bond of union among them.—There is a principle in our constitution, which determines us irresistibly, without reasoning or proof, to judge that there is some cause of every new existence, and of every change which things undergo. We have a natural
1 propensity

propensity to consider particular things as causes or effects, we pronounce them such, not from any comparison of their qualities, or any perception of the fitness of the one to produce the other, but from experience of their conjunction. With respect to objects which we have all our lives judged to stand in this relation, it is often the subject of intricate and uncertain investigation, what are the qualities which fit them for bearing this relation to one another, and often we remain altogether ignorant of this.

THERE is an original principle in our nature, which determines us to judge, That the future will resemble the past, and instances of which we have had no experience, those of which we have had experience. As God has made the course of nature uniform and constant, so he has formed us for placing implicit confidence in its uniformity and constancy, for expecting the continuance of those connexions of things, which we have hitherto observed. This principle is inexplicable; the judgment to which it leads us, is immediate and independent upon arguments. It is the foundation of all our reasonings concerning real things. Guided by it, we conclude, what will be, from our experience of what

has been ; the particular judgments which experience has dictated, we extend beyond the instances of which we have had experience, and render general : we believe that those qualities which we have observed to be co-existent, will in all similar instances be co-existent, that causes will constantly produce such effects, and effects require such causes as they formerly have. It is to this original principle in human nature, that we owe our conviction in all our reasonings from experience. But this principle, simple and uniform in itself, admits great variety, and is complicated with many exertions of the understanding, in its application to particular subjects. It will therefore be proper to make some observations upon it.

OUR experience of the past and of what we are acquainted with, is the ground on which we form all our judgments concerning the future, and what is unknown to us. Experience is the result of a number of particular observations. Attention to the several instances as they occurred, and distinct remembrance of them afterwards, are necessary for our acquiring experience ; and men's experience in the same circumstances, will be greater or less in proportion to their propensity

sity to attend to what passes before them, and their ability to remember it.—In every instance, the circumstances which are of importance for forming experience, are found in conjunction with others which are of no importance : there is a natural sagacity fit for distinguishing these, which different men possess in very different degrees ; and in proportion to the degree of it which a man possesses, his experience will be more or less exact and precise. Experience is not merely the remembrance of a number of unconnected observations : it is a judgment formed with sagacity from them all together (*b*). It is formed by means of a sort of abstracting power, which separates the necessary circumstances from the accidental : and the kind and degree of conviction that attends it, corresponds to the particular relation or connexion of the things, on which our observation is fixt. In some cases, there is little difficulty in forming such a judgment with precision ; there are few accidental and unimportant circumstances joined with the necessary and im-

(*b*) Πρῶτος δὲ ὁ τῆς ἀναγραφῆς τρόπος, ὁ διὰ τῶν αἰσθήσεων, αἰσθανόμενοι γὰρ τινες, ὅσον λευκοῦ, ἀπειλοῦτος αὐτοῦ μῆμην ἔχουσι· ὅταν δὲ ὁμοιοεῖς πολλὰ μῆμναι γίνωνται, τότε φασὶν ἔχειν ἐμπειρίαν· ἐμπειρία γὰρ ἐστὶ τὸ τῶν ὁμοιοειδῶν πλῆθος. ΠΛΟΥΤΑΡΧ. περὶ τῶν ἀρίστων τοῖς φιλοσόφ. βιβ. δ. κεφ. ια.

portant ones. In other cases, the unimportant circumstances are so many, and so much blended with the important, that it requires superior acuteness to separate them: though the particular instances be perfectly remembered, yet often no experience is derived from them, or experience very inaccurate, and unfit for being applied to any use. This difficulty is the primary cause of all the uncertainty and all the intricacies which attend our reasonings from experience, and of all the errors into which we are apt to fall in such reasonings. For want of a degree of acuteness sufficient to surmount the difficulty, we form false judgments of the connexions of things, in the very instances which we have had access to observe: and if we attempt to reason from these instances, the falsehood cannot fail to be communicated to all the conclusions which we infer.

AFTER we have collected experience, in order to our reasoning from it, it is necessary that it be recollected and brought into our view when we have occasion for it. This is the work of imagination. The instance concerning which we want to draw a conclusion, is associated with the similar instances of which we have had experience, and suggests them.

Their

Their being readily and perfectly suggested, depends partly on the force of the memory retaining them distinctly, and partly on the vigour of the imagination, on the strength and activity of that associating principle which connects them with the present instance. Often when we have had very extensive experience, we are rendered incapable of drawing a conclusion from it, by its not being suggested at the time when it would be useful. In all our experimental reasonings, imagination must be exerted; and consequently men's capacity for such reasonings, must in some measure depend on the degree in which they possess that faculty (*c*).

WHEN our past experience is suggested, we compare the thing of which we want to judge, with that experience, that we may discern whether it corresponds to it or not. The power of determining this justly, is of the same kind with that sagacity which enables

(*c*) Perceptions of sight suggesting ideas of tangible qualities, have been considered by some philosophers as a judgment, by others as an effect of association. What has been just now said, accounts for this difference, and shows that both are partly right. Both judgment and imagination are concerned. There was a judgment originally formed of the connexion between the visible and the tangible qualities; but it is imagination that enables the perception of the former to suggest the idea of the latter, and to suggest it so quickly and easily, that this idea is confounded with that perception.

us to collect accurate experience: it is the same principle exerted in a different manner, and in somewhat different circumstances: and on our having this power in perfection, soundness of judgment in all our reasonings from experience, very much depends. Those men who are defective in it, draw their conclusions from instances nowise similar; and therefore their conclusions are erroneous or inaccurate.

WHEN experience is collected, suggested, and applied to the instance in question, a conclusion is drawn wholly by means of that original principle already mentioned, which leads us to expect the continuance of things and their connexions, according to our past experience. When our past experience has been both extensive and uniform, and the present instance exactly corresponds to it, we draw the conclusion with *certainty*: if any of these three circumstances be wanting, if we have had experience only in a few instances, or if there has been a contrariety in our experience, or if the instances of which we have had experience, do not exactly resemble the present instance, the conclusion is attended only with *probability*, and embraced with different degrees of *opinion* proportioned to the degrees of probability. The last of these
cases

cases is distinguished by the name of *analogical* reasoning. The varieties of assent in all of them, necessarily result from the nature of that principle to which they are owing.

THE several operations of the mind which are thus united in reasoning from experience, assist and promote one another. A propensity to observe and attend to the several instances which occur to us, gives sagacity a great advantage for collecting general experience from them; it fixes them also deeply in the memory; and renders it easier for imagination to suggest them when we have occasion for them. A natural sagacity in gathering correct experience, promotes, in its turn, attention to the objects which fall under our observation, and gives it such a direction as makes it most useful, by rendering our ideas of the experienced instances determinate and distinct; it likewise gives imagination the means of introducing them. It was observed already, that a capacity of acquiring accurate experience, is absolutely necessary for our drawing just conclusions: it is proper to observe on the other hand, that the faculty employed in drawing such conclusions, when improved by exercise, gives great assistance in acquiring farther experience. The conclusions them-

selves also which we have deduced from experience, are useful for enabling us to collect experience with greater ease, and with greater correctness. Every just conclusion with which we become acquainted, throws new light on the face of nature, gives us a more extensive view of its course and its laws, and enables us to correct some error, to ascertain some ambiguity, or to define some indistinctness, in our former observations even concerning objects which are most familiar to us. Our *primary* experience is derived from particular instances which have fallen under our observation: from it we deduce conclusions, which we adopt and rest in: and the maxims implied in these conclusions, form a sort of *secondary* experience, by which the primary is extended, limited, or corrected, and by which sagacity is aided in forming new experiences with greater acuteness, facility, and assurance. This secondary experience has been in some measure acquired, and the habit formed of applying it to use, by every man, long before he comes to the age of reflection, or begins to attend to the operations of his own mind. Even that principle which leads us to judge, that the future will resemble the past, and instances of which we have not had experience,

experience, those of which we have, is strengthened and exerts itself with greater assurance, in consequence of our being accustomed to draw conclusions from experience. By means of this, we often allow certain belief to conclusions founded on experience of a very few instances, sometimes even on a single trial; we take it for granted that every similar trial will turn out in the same way; for we have experience of the stability of the course of Nature, and this general experience in some measure supplies the place of experience in that particular case.

As there are thus several powers jointly exerted in all our reasonings from experience, it is only when all these powers exist in full vigour, that the faculty of reasoning from experience can be perfect. The different degrees of these powers in different men, will produce correspondent degrees of judgment in matters of experience. The different proportions in which these powers are united, will occasion varieties in the form which this kind of judgment assumes, and in the subjects to which it is adapted.

FINALLY, there is in our nature, an original determination to give credit to the testimony

timony of others (*d*). Did this determination exert itself without any restraint, it would lead us to believe whatever is said by others. It would exert itself without restraint, if we had never found ourselves deceived by others. But experience teaches us that others are often deceived, and that they sometimes intend to deceive, and, in consequence of this discovery, leads us to examine their testimony before we assent to it. We consider the characters and the number of the witnesses, the ends which they may serve by deceiving us, the motives which may urge them to attempt it, their opportunities of knowing the truth; and we estimate by these circumstances, the degree of credibility which belongs to their reports. We compare the subject of their testimony with our own experience, and give greater or less credit to it according to its probability. In all this, there is ample scope for the exercise of judgment. It is chiefly the kind of judgment employed in reasoning from experience, that is exercised in estimating the degree of assent due to a particular testimony: and it is by the conclusions and

(*d*) See CAMPBELL'S *Dissertation on Miracles*, part i. sect. 1, 2. where this species of belief is explained with great ingenuity.

maxims which we have deduced from experience, that we restrain and limit our assent to testimony. On the other hand, the information which we receive from the testimony of others, is added to our own observations, becomes a part of our experience, and extends it, and is built upon as a foundation in our experimental reasonings.

WE judge of beauty, as well as of truth: the faculty by which we judge of it, is distinguished by the name of *taste*. It likewise is susceptible of great varieties, which contribute to diversify the forms and exertions of genius. The influence of taste does not, like that of judgment, extend to all the kinds of genius; and therefore we have not hitherto been led to a particular consideration of it: it is sufficient to observe in general, That it influences genius in producing beauty, in the same ways in which judgment influences all the exertions of genius. Indeed the effects formerly ascribed to judgment (*e*), proceed in a great measure from that species of it which we call taste, in all such works of genius as are proper objects of taste.

THE varieties of taste are either in degree or in kind. In every instance, it is a com-

pound of judgment properly so called, and of the internal senses (*f*). Both these may be possessed in very different degrees of strength; and every difference in the degree of either, will produce a correspondent difference in the degree of taste.—The taste of one man holds chiefly of judgment, the taste of another man, chiefly of the internal senses. This will render their tastes different in kind. One set of qualities are the proper objects of judgment, another set immediately affect and exercise the internal senses: the one set or the other will be principally attended to and perceived by a person, according as judgment or internal sense is the prevailing principle in his taste.—Each of these principles also is susceptible of great varieties. The varieties of judgment have been just now enumerated: several of them enter into those exertions which regard the objects of taste, fit men for taking different views of these objects, and give taste dissimilar turns. One judges best of the proportion of the parts, another of utility; each is most pleased with and sets the highest value upon that quality of which he is the most capable judge. The internal senses are many, and are adapted to different

(*f*) *Essay on Taste*, Part II. sect. 2.

subjects,

subjects, or to the different qualities of the same subject (g): the predominance, therefore, of any one of these senses will give taste a correspondent form. One man is susceptible of strong impressions from grandeur and sublimity; another has a quick feeling of the beautiful and elegant: one has a taste for the harmony of sounds, another for the gracefulness of forms.

THE perfection of taste consists in *sensibility, refinement, correctness, and the just proportion of its principles* (h). In all these respects, the tastes of different men differ extremely: we find in individuals, all the intermediate degrees between an almost total want of any of these qualities, and the utmost perfection of it.—A person may likewise possess one of these perfections, while he is defective in the rest: or, without being remarkably defective in any of them, he may be eminent in one. Hence will spring dissimilar kinds of taste.

OF the kinds of judgment which have been enumerated, some belong in a nearly equal degree to all men. Such is that intuitive faculty by which we perceive the self-evident relations of general ideas: such are our na-

(g) *Essay on Taste*, Part I.

(h) *Ibid.* Part II. sect. 4, 5, 6, 7.

tural judgments concerning the existence of our perceptions and of the qualities and beings immediately suggested by them. Any defect in these species of judgment, would totally disqualify men for ordinary life. These admitting no variety, can produce no diversities of genius. Some philosophers have not, indeed, allowed these their due weight, and in consequence of that, have attempted to establish paradoxes, and introduce scepticism inconsistent with them. But this has not proceeded from their being destitute of these powers, or from their possessing them in a less degree than other men; for their behaviour in common life shows that they pay sufficient regard to them: but it has proceeded from their not reflecting upon them, and explaining them to themselves, in analyzing human nature. It is, therefore, only an error in their theories, not a sign of any imperfection in their constitution.

OTHER powers of judgment are possessed by different men in very different degrees; and some who excel in one kind, are defective in another. They who have great acuteness in mathematical and demonstrative reasoning, sometimes betray great weakness in arguing from experience, and judging concerning

cerning matters of fact. On the other hand, there have been instances of persons, who could scarce perceive the evidence of the easiest demonstration in Euclid's Elements, and were incapable of apprehending mathematical reasonings of length and intricacy; but could judge very prudently in common life, draw conclusions from experience with great exactness, and understand all the sciences which consist of such conclusions. It is not surprising that it should be so: for not only is that reason by which we perceive the relations of general ideas, different from that judgment to which we owe our conviction in matters of experience; but also in these two kinds of reasoning, memory and imagination are exerted about different subjects, to which different modifications of these powers are adapted. Some have a talent in philosophical reasonings, deducing the causes and the general laws of things from their phenomena, or tracing the appearances which will result from any supposed causes or laws, who nevertheless are ill qualified for unravelling historical doubts, or tracing the motives and the consequences of human actions. Others are great masters in reasoning concerning human life, who have no great abilities for reason-

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ings concerning human nature, the subject of philosophical investigation most nearly allied to that. Though conclusions of these different kinds, be sometimes deduced from the very same facts, yet for the deduction of them, these facts must be set in different lights, different circumstances of them must be attended to, and a different sort of abstraction exercised, as well as a different kind of instances suggested by fancy for supporting the conclusion. It happens much more frequently, that a person, along with great powers of reason, possesses but imperfect taste, or that a person of fine taste, is not remarkable for vigour or depth of understanding. Every man will be prone to exercise that kind of judgment in which he excels, and to study the subjects which give scope to it; and he will shun such subjects as require a kind of judgment in which he is deficient: the former kind will be improved by habit, the latter will be impaired by neglect. Hence the original differences of judgment will be increased. The kinds of judgment which thus admit variety in themselves, are they that diversify the form and the exertions of genius. In what manner they diversify them, will appear from the following observations.

IMAGINATION

IMAGINATION cannot in any case perfect its discoveries without the assistance of judgment. Imagination collects materials ; a certain kind and degree of judgment is necessary for applying them to use. If they are not applicable to any purpose which suits a person's turn of understanding or taste, or if he has not a degree of these powers sufficient for discerning that purpose and adapting the materials to it, they will be thrown aside as useless, or at most preserved in their indigested form. Since the revival of natural philosophy, many have tried multitudes of experiments, who wanting the judgment necessary for discerning the result of them, have not been able to deduce any general conclusions from them. There is a degree of imagination requisite for contriving experiments ; there may be genius shown in conducting and varying them ; but it is genius only for natural history. Along with a turn of imagination fit for leading from one experiment to another, there is a strong propensity to attend to the circumstances of particular facts : but there is a weakness in the abstracting power, and a defect in the other faculties employed in reasoning from facts, which prevent the mind's advancing to general deductions of

laws and causes. In order to produce philosophical genius, there must be superadded, acuteness in discerning the result of experiments, and comparing them together, an aptitude for recollecting observations as they become necessary, a propensity to search for causes and connexions. A person possessed of this cast of mind, will draw conclusions from the appearances observed by others, which they themselves could never have thought of: and yet this person has not perhaps the turn of imagination, or the degree of attention necessary for making all the trials which they made. Possessed of genius for natural *science*, he may be rather defective in that kind of genius which serves to promote natural *history*. Boyle had an admirable turn for making experiments, he made many with great accuracy on a variety of subjects; he made some concerning the appearance of light by the prism, he observed the oblong image of rays refracted by means of it, he distinguished that image into five different colours, and he made some remarks upon this phenomenon (*i*); but he thought not of inferring from it, the different degrees of refrangibility in the rays of light. A different kind of

(i) BOYLE *Exper. et Considerat. de Coloribus*, Par. III. Exp. 4.
judgment,

judgment, or a superior degree of the same kind of judgment, enabled Newton, from the same phenomenon, to form many conclusions on this subject (*k*). Ever since electricity began to attract the attention of the curious, many persons have employed themselves in making experiments relating to it, and have displayed considerable ingenuity in making them; but most of these have not discovered philosophical or scientific ingenuity. It is to a very few in the large catalogue of electricians, that philosophical genius can be ascribed; for to a very few is confined all that has been done in accounting for the phenomena of electrical experiments, and deducing important principles from them.

WHEN a person wants the kind or degree of judgment necessary for applying the materials which imagination has collected, to that purpose of invention to which they might be subservient, his genius is repressed, the disappointment tends to prevent his indulging himself in again amassing materials of the same sort, and to make him turn his fancy to such works as, being more suitable to the turn of his judgment, he can prosecute with success. By this means, his genius will be, still more than it originally was, confirmed in that

(*k*) *Optics*, Book I.

direction to which his powers of judgment are best adapted. There are not wanting instances of persons who, finding their turn of judgment and taste imperfectly adapted to that species of exertion to which their imagination had first prompted them, have quitted it for another species to which they found these powers more adequate, and in which they could therefore become more correct.

THE same materials may be applied to different purposes. They will be applied by every person chiefly to that purpose which his judgment best enables him to accomplish. If the imaginations of two men were so similar as to collect the very same materials, or to suggest the same ideas; yet if their turns of judgment be dissimilar, they will apply these to purposes as dissimilar, and be unlike in the particular form and in all the exertions of their genius.

JUDGMENT not only receives the materials selected by imagination, and forms them for use, but also excites imagination, and sets it a-working. The decisions of judgment, as well as our sensations and ideas, are perceptions which may give an impulse to imagination, and direct it into a particular track of thinking. Men's decisions upon the materials

rials before them, will be different, according to the species of judgment in which they excel; and will give proportionably different impulses to the imagination, and make it to move in proportionably different directions. On this account, judgment must have a strong tendency to diversify the form of genius. Genius takes very few steps in any investigation, in any train of sentiment and thinking, or in forming any design, without receiving an impulse from judgment: through its whole progress, conclusions and determinations are intermixed closely and at very short intervals, with the suggestions of fancy; and the conclusions and determinations thus intermixed, will always be such chiefly as proceed from that modification of judgment in which the person excels. A prevailing taste for the ludicrous, determined the genius of Peter di Cosimo, though fit for producing greater works, to such subjects of painting as admitted only satyrs, harpies, and the like whimsical and monstrous figures. It was the correctest taste for beauty, continually regulating and instigating a fine imagination, that produced the purity of design, the sweetness of disposition, the propriety and grace, by which Raphael is characterised. A defect in

that taste rendered Correggio in some respects incorrect and ungraceful, while a strong relish for the sublime, prompting and directing an imagination well formed for producing it, bestowed upon him a peculiar greatness of manner (1).

IF a man be defective in the species of judgment requisite for any particular determinations or conclusions, so as not to form them at all, or to form them wrong, when they become necessary, his fancy will be at a stand, his genius will be unable to carry the work farther forward, or to improve it to a higher degree of excellence. Did the judgment of an artist enable him to perceive the particulars in which he is faulty, his genius would often be sufficient to correct them; their remaining therefore in his works, shows that his judgment was not able to scrutinize them properly: Titian relinquished the dry manner of his master, which appeared in his first paintings, as soon as his judgment was improved enough to perceive and to disapprove it; though Ludovico Carracci for some time showed little genius for painting, yet after his judgment was improved by the diligent study of the works of great painters, it gave

(1) FRESNOY's *Judgment of Painters*.

his fancy so powerful an impulse, that he became excellent in design, colouring, and grace (*m*): without that improvement of judgment, the genius of these artists must have remained defective. In every part of natural science, experiments have been made with great accuracy, by some who were not turned for observing all the circumstances of the experiments; these circumstances have been minutely observed by some who, for want of the power of abstraction, could not determine the result of the experiments; and some who were capable of determining this, have been hindered from pursuing the conclusions to which it might have led, not only for want of imagination sufficient for carrying on the investigation, but also for want of the species of judgment which must have been employed in it.

THE same materials may give occasion for determinations and conclusions of different sorts: if a person possess only the kind of judgment fit for forming one of these sorts, immediately on forming them, he will leave the road pursued by another who, possessing a different kind of judgment, had formed dissimilar conclusions, he will go forward in

(*m*) FRESNOY, *ibid.* Graham's account of painters.

a peculiar track, and arrive at a very distant point. Newton formed a judgment concerning the unequal refraction of the rays of light; from some of the simplest prismatical experiments: it was this judgment that suggested to him the subsequent experiments proper for ascertaining that principle, and gradually opened up the wonderful course of observations and the noble train of discoveries which he made concerning light and colours; and in the prosecution of these, both the most vigorous power of abstraction, and the most piercing judgment of mathematical truth, were continually exerted. Boyle was inferior to Newton in the former of these powers, and possessed no great degree of the latter; his turn of understanding led him not to form the same conclusion from the most obvious experiments; by not having formed it, his genius was at a stand in deducing the laws of refraction, he quitted the prismatic experiments without applying them to any use: but he possessed judgment of another kind, and by means of it, from a multitude of experiments deduced conclusions of a different nature, concerning the immediate causes of colours in particular bodies, and the methods of producing them.

IT was already shown, That *regularity* of imagination is an essential constituent of genius; that this regularity consists in a capacity of keeping the end of a work steadily in view, and a propensity to subordinate the parts to that end; and that, though it be primarily founded in a particular turn of the imagination, it is promoted by the exercise of judgment; and could not, without this, attain tolerable perfection. It is judgment that perceives when imagination deviates from the paths which lead to the end proposed; it is owing to this perception, that imagination is recalled from its wanderings, and made to set out anew in the right road; and it is the frequent exercise of judgment in this employment, that gives imagination an habitual regularity and correctness. This excellence of imagination must therefore have a great dependence both on the *degree* and on the *kind* of judgment which a person possesses.

THE acuter any species of judgment is, the more readily, the more certainly, and the more constantly, it will observe and check every improper excursion of fancy. Genius will therefore, in every man, acquire a degree of correctness in some measure proportioned to the exactness of his judgment.

FURTHER,

FURTHER, the means adapted to different ends, are connected with these ends by different relations, and promote them in different manners. According therefore to the variety of the ends proposed, a different kind of judgment is necessary, for discerning, whether the materials collected, have or have not a tendency to promote them. On this account, men's diversity in point of judgment will give their imaginations different sorts of regularity, and consequently mould their genius into different forms. Hence a person who thinks and composes with great correctness on one kind of subject, often runs into great wildness and irregularity on a different kind. No two arts are more analogous than poetry and eloquence; but the poet aims chiefly at pleasing, and the orator at moving. The poet may have a very nice discernment of the qualities which are fit to please, and may conduct a poem with the utmost regularity; and yet may be incapable of producing a regular oration: the qualities which tend to move, are different in some respects from those which please; to move, objects must be set in a different light, and described in a different manner, from what pure poetry would require; to discern their tendency to move,
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a sort of judgment different from the poetical, is necessary; if the poet have not this sort of judgment, he cannot succeed in eloquence, the parts of his oration, though separately beautiful, will be often improper and misplaced. Indeed a poet always runs a risk of becoming florid, desultory and incorrect, in an oration; he cannot escape it, except he possess judgment of another kind, as well as that which pure poetry would demand.

IN these several ways which have been mentioned, in fitting men for applying their ideas to different purposes, in leading imagination into different tracks, and in bestowing on it different kinds of regularity, judgment is active in diversifying the forms of genius. But it may likewise be observed, That, independent of this influence of judgment upon genius, there will always be a considerable analogy in the form of these two powers. In all cases, some exertions of imagination are intermixed with those of judgment. In mathematical reasonings, truths self-evident, or already demonstrated, are seasonably suggested by fancy; in experimental reasonings, particular facts and conclusions from them, are in like manner suggested; in experimental reasonings of different kinds, different sorts of facts

facts and conclusions are brought into view ; in the fine arts, fancy is continually employed in exhibiting to taste, those qualities concerning which it pronounces. In consequence of this, every man has an advantage for excelling in that species of judgment, which is most congruous to the turn of his imagination : and on the other hand, his imagination will take that turn which is most suitable to the peculiarity of his judgment. Thus, by the influence which these two powers mutually exert on one another, each of them is so moulded and altered, that their habitual form and character becomes in a great measure the same.

P A R T III.

Of the Kinds of Genius.

HITHERTO we have endeavoured to investigate separately the sources from which the diversities of genius spring. In this investigation, it was necessary to search out the varieties incident to those powers which are any ways concerned in the operations of genius; for these varieties are the simple principles, by the combination of several of which every distinct kind or form of genius is constituted. We must now pursue a different method. Every kind of genius derives its denomination most properly from the nature of the object about which it is employed, or of the end to which it is adapted. The distinction, therefore, of the kinds of genius, may be most commodiously deduced from the difference of their objects and ends: and distinguishing them according to these, we must explain each, by combining the principles already established, and pursuing them through their natural consequences.

S E C T. I.

Genius twofold ; for Science, or for the Arts.

THE ends to which Genius may be adapted, are reducible to two; the discovery of *truth*, and the production of *beauty*. The former belongs to the *sciences*, the latter to the *arts*. Genius is, then, the power of invention, either in science or in the arts, either of truth or of beauty.

THERE are great differences between one science and another, and between one art and another. On account of these differences, each science and each art requires something peculiar in the genius which is suited to it. I intend not, at present, to descend to the investigation of these minuter peculiarities : it would be curious ; but it would be likewise intricate : at any rate it is naturally posterior to the illustration of the more general distinctions of genius.

THERE is likewise a general analogy among all the sciences, and among all the arts : and therefore we may expect to find some characters common to scientific genius in all the forms which it assumes, and other characters, dissimilar to these, common to all the kinds of
genius

genius which are exerted in the arts. These are the characters which I shall endeavour to ascertain.

SOME difference between genius for science, and genius for the arts, arises necessarily from the very diversity of their ends. I begin with this. Scientific genius addresses its discoveries to the understanding; their end is information: genius for the arts addresses its productions to taste, and aims at pleasing by them. It is a property of genius, that it keeps the end of the work continually in view, and by the view of it, modifies all the parts of the work, and selects the means which it employs so as they may be subservient to that end. This contributes to distinguish these two kinds of genius, and to render all their operations and efforts very dissimilar: they consider all their objects in perfectly different lights.

SCIENTIFIC genius leads a person to look out only for such objects and ideas as imply some truth, or suggest some new conclusion. Assisted by the constant perception of this end, any relation is sufficient for introducing such objects and ideas; all the associating principles are put upon the search for them; every object which these principles present, is steadily contemplated in that point of view in

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which

which it contributes to this purpose; all the circumstances of it which contribute to this purpose, are studiously sought out and examined with care; objects and circumstances of objects, which contribute nothing to it, either are not at all suggested, or are instantly perceived to be useless, and dismissed without the smallest notice. Genius for the arts renders the person who possesseth it, equally intent on pleasing taste by his work. In consequence of its impulse, objects and ideas fit to gratify taste, are very readily suggested to him; they are drawn into his view by their relation to the design, as well as by the relations which they bear to one another; as soon as they are suggested, they are moulded into that form, and placed in that attitude, in which they promote this design, and they are contemplated in that form and attitude alone: such objects and such circumstances of objects as are unfit to please, either do not at all occur to the artist, or, being perceived at one glance to be unfit, are immediately rejected.

By this fixt association of so dissimilar ends, the two kinds of genius become very unlike in all their exertions. In every complex object that can engage our attention, there are two sorts of qualities; there are some which
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give us pleasure or pain, and there are others which convey perceptions of an indifferent nature. Genius for the arts directs the attention chiefly to the former sort, and it leads to consider them only so far as they either immediately produce, or remotely contribute to pleasure or pain. Qualities which appear indifferent to sense, gratify taste in some situations: whenever they do, they attract the notice and employ the powers of genius for the arts. The mere perception of extension is indifferent; but the largeness of its quantity produces grandeur, its terminations form figures either beautiful or significant; a just representation of it often displays skill: in all these cases it is a source of pleasure, and engages the notice and employs the abilities of the poet and the painter. Both those qualities of things which give pleasure or pain, and those which give neither, enter into the sciences and affect the genius adapted to them. But the former are generally considered abstractedly from the pleasure or pain which they give; and even when these are taken into the account, the philosopher proceeds as if he were insensible to them, makes them the subject of cool enquiry, examines what truth

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they

they indicate, analyzes the feelings, or traces the causes and effects of them.

THE philosopher describes minutely all the appearances of his object : his design requires it ; every one of them involves some truth ; inattention to any one of them may prevent the discovery of truth, or occasion error ; those of them which seem least striking, often lead most directly to truth, or lead to the most important truths. A poet, on the contrary, would overlook by far the greatest part of these appearances ; they are unfit to please, and for that reason attract no share of his attention : he fixes on a few that are most striking, and labours to set these in a striking light. The observation of many minute circumstances, and a variety of exact mensurations, were absolutely necessary for ascertaining the laws of light and colours ; and Newton's genius gave him a propensity to attend to them : these would make no figure in poetry ; and a poet, though perfectly acquainted with them, would never once think of them while engaged in composition ; he would catch some general appearances, and be satisfied with these.

A GENIUS for science is formed by *penetration*, a genius for the arts, by *brightness*.

There are, perhaps, no general characters by which these two kinds of genius can be more properly discriminated. Each of these characters is produced by certain peculiar qualities of those powers on which genius has a dependence. In the one of them are combined modifications of imagination, memory, and judgment, different from those modifications of the same powers, which are combined in the other : these powers likewise are combined in different proportions.

S E C T. II.

Of the Structure of Imagination, which distinguishes the two kinds of Genius.

BOTH penetration and brightness imply a great extent and compass of imagination, or great vigour of the associating principles; but they imply different sorts of compass and vigour. Penetration implies such a force of imagination as leads to the comprehension and explication of a subject : brightness of imagination fits a man for adorning a subject. A penetrating mind emits the rays by which truth is discovered : a bright fancy supplies the colours by which beauty is produced. There are many peculiarities of ima-

gination, which contribute to the formation of these opposite characters : by tracing out these, our general description of the distinction between genius for science and genius for the arts, will be justified, and a more particular view will be obtained of the difference of these two kinds.

ACUTENESS of judgment is essential to penetration, but cannot alone produce it. It would produce correctness and readiness in deciding upon materials which were in our view : but penetration implies, over and above this, a capacity of bringing quickly and completely into view, whatever materials are necessary for our present purpose. This capacity can arise only from *imagination*. In general, penetration requires that construction of imagination, which fits a man for fixing his view steddily on one thing, or on those connected with it by close and important relations, for attending to all the circumstances belonging to that thing, and, as it were, exhausting its qualities. This construction of imagination is evidently adapted to the end of science, the investigation of truth. For the conclusions of science lie deep, and must escape the transient glance of the superficial observer : they occur by our attending to such
qualities

qualities in things as are least striking and least apt to force themselves on our attention, and by our pondering and contemplating in a variety of lights, such qualities as cannot be perfectly comprehended by a person who dwells not on the same object for any length of time. — Brightness of imagination is of an opposite nature: it is such a strength of imagination as makes every present object suggest a multitude of ideas, and hurries the mind quickly from one thing, to others not very strictly connected with it. This character is no less evidently accommodated to the purpose of the arts, than penetration to that of the sciences. A quick succession, or a copious exhibition of different objects fit to please, is a great mean of producing the beauty sought after in all the arts. In poetry, for instance, the intricacy of the fable, that is, the variety and dissimilarity of the incidents, and the diversity, the number, and a proper remoteness of the images, are reckoned among the surest tests of real genius.

It would appear to be one consequence of what has been said, that penetration implies an aptness to be affected only by the closest and strongest relations of things; and that bright-

ness implies a propensity to be influenced by such relations as are slighter and more remote : for the latter propensity tends to draw off the mind to a great distance from its object ; but the former allows it to continue nearer to it, and makes it easier to recur quickly to the contemplation of it. The consequence is just ; and the consideration of it will farther determine our idea of the difference between a genius for science and a genius for the arts. When ideas are suggested to men of these different kinds of genius, by means of the same relation, it will be found that, generally, the ideas connected with the present object by the stronger degree of that relation, are suggested to the philosopher, and those connected by the weaker degree of it, to the artist. The former sort are those about which the deductions of science are commonly employed ; the latter supply the decorations necessary in the fine arts. Any comparison by which a philosopher would illustrate or confirm a theory, must be such as is exactly parallel ; it is enough for a poetical comparison, and even heightens its beauty, that it agree with the subject to which it is applied, only in some of its circumstances. When a philosopher explains the causes of
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any appearance, or traces out the effects of any principle, he proceeds regularly through them all, according to the different degrees of their dependence: let a poet introduce the same subject; he will describe, not all the causes or effects, but some of them; he will often omit the nearest and most direct, and take notice only of such as are more distant and indirect; he will not give a full delineation of any one cause or effect, but mark each by some leading or striking circumstances. These differences in manner are natural consequences of the difference in the principles of association, now under consideration; and that they take place, might be shown by an induction of many particulars. The subject of Lucretius's poem is scientific; several of the Epicurean theories which he describes poetically, are philosophically deduced in the writings of the ancients: compare his account of any part of the Epicurean system, with the account of the same part in Cicero's philosophical works, for instance, and the differences just now remarked will appear. If in any instances they do not appear, it will be found either that the former is not there properly poetical, or that the latter has dressed up philosophy in a rhetorical garb approaching near

to the poetical (a). Thomson introduces several parts of the Newtonian philosophy; compare his account of these with the same parts as delivered by systematic writers, and you will find the same differences.

(a) All these cases may be exemplified in different passages of these two writers. They both give an account, for instance, of Epicurus's doctrine concerning the motion of atoms. Lucretius's account of their moving downward, is given in a manner considerably poetical, and in which we may remark many of the peculiarities just now mentioned, as characteristic of genius for the arts:

Nunc locus est (ut opinor) in his illud quoque rebus
Confirmare tibi, nullam rem posse sua vi
Corpoream sursum ferri, sursumque meare.
Nec tibi dent in eo flammæ corpora fraudem:
Sursum enim vorsum gignuntur, et augmina sumunt.
Et sursum nitidæ fruges, arbutaque crescunt:
Pondera, quantum in se est, quom deorsum cuncta ferantur:
Nec quom subsiliunt ignes ad tecta domorum,
Et celeri flamma degustant tigna, trabeisque.
Sponte sua facere id sine vi subigente putandum est.
Quod genus, e nostro quom missus corpore sanguis
Emicat exsultans alte, spargitque cruorem.
Nonne vides etiam, quanta vi tigna trabeisque
Respuat humor aquæ? nam quam magi' mersumus altam
Directa, et magna vi multi pressimus ægre:
Tam cupide sursum revomit magis, atque remittit:
Plus ut parte foras emergant, exsiliantque.
Nec tamen hæc, quantum in se, dubitamus, opinor,
Quin vacuum per inane deorsum cuncta ferantur.
Sic igitur debent flammæ quoque posse per auras
Acris expressæ sursum succedere, quanquam
Pondera, quantum in se est, deorsum deducere pugnent.
Nocturnasque faceis cœli sublime volantes
Nonne vides longos flammæ ducere tractus,
In quascunque dedit parteis natura meatum? &c.

Lib. ii. ver. 184.

Cicero gives an account of the same doctrine, in a manner very unlike, in the simple cool manner suitable to science:

BUT

BUT a propensity to be affected with the closer or the slighter degrees of relation, is not alone sufficient to account for the difference between brightness and penetration, or to explain how one genius is fit for science, and another for the arts. It must be observed farther, that the peculiar predominance of some of the associating principles contributes to form penetration, and the predominance of others of them, to form brightness of imagination; and that in several ways.

THERE are some of the relations of things which lead the mind more quickly, and to a

“Censet enim, eadem illa individua, et solida corpora ferre suo deorsum pondere ad lineam: hunc naturalem esse omnium corporum motum.” *De Fin.* lib. i. and in several other places. The poet’s account of the declination of the atoms, has little poetical in it;

Illud in his quoque te rebus cognoscere avemus:
Corpora cum deorsum rectum per inane feruntur
Ponderibus propriis: incerto tempore firme,
Incertisque locis, spatio secedere paullum,
Tantum quod nomen mutatum dicere possis.
Quod nisi declinare solerent, omnia deorsum,
Imbris uti guttæ, caderent per inane profundum:
Nec foret offensus natus, nec plaga creata
Principiis. Ita nil unquam natura creasset.

Ibid. ver. 216.

and in consequence of this, it differs very little from Cicero’s account of the same tenet; “Deinde ibidem homo acutus, cum illud occurreret, si omnia deorsum e regione ferrentur, et, ut dixi, ad lineam, numquam fore, ut atomus altera alteram posset attingere: itaque — — declinare dixit atomum perpaullum: — — ita effici complexionem, et copulationem, et adhæSIONES atomorum inter se: ex quo efficeretur mundus, omnesque partes mundi, quæque in eo essent.” *Ibid.* Many other examples might be produced.

greater

greater distance, from these things, than other relations would lead it: the former will by this very circumstance, according to what has been already evinced, be most favourable to brightness, the latter to penetration. There are some qualities in every object, which lay a foundation for relations between it and many other objects: thus the obvious sensible qualities of bodies produce an infinity of resemblances or contrasts to a multitude of other things. A strong propensity to attend to these qualities, and to be affected by the relations correspondent to them, will be highly conducive to brightness of fancy; it will produce surprising assemblages, agreeable imagery, and unexpected ornaments. But it is unfavourable to penetration; it produces associations which must lead the mind through many objects in a rapid succession, allowing it to take but a superficial view of each. It will therefore contribute to penetration, at least it will remove one obstruction to the exercise of this power, that the imagination be not readily or strongly affected by those flighter relations which the most obvious qualities form among a great multitude of things unconnected in other respects. Accordingly, I do not say all, but most philosophers who were really inventors,

ventors, have shewn no great turn for adorning their writings with such images and comparisons as form the graces of poetry. There are in all objects, qualities likewise of an opposite kind, which do not form obvious connexions between them and a multitude of other objects. Such are the mutual influence of the qualities of the same thing, the various phenomena of these qualities, their causes and their consequences. These, instead of impelling the mind to wander through a wide extent of things, rather confine it to one thing, or to such as are intimately connected with it in some important respect. A prevailing propensity, therefore, to attend chiefly to such qualities, will not hurry the mind with rapidity from one thing to others; and will therefore be unfavourable to brightness: but it will leave it at leisure to dwell on its present object, and dispose it, that it may find employment, to contemplate it in every light; and will thus be conducive to penetration.

It is observable likewise, that the qualities last mentioned form the most important and interesting relations among things; these will, therefore, influence the imagination and promote penetration, in much the same manner with the stronger degrees of any one relation:

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the relations which are formed by the others, are much more trivial, and will affect the fancy and produce brightness, in the same manner with the lighter degrees of any relation.

THE more important relations of things, will also be those which lead most naturally to the discovery of truths concerning them; the more trivial relations are, on the other hand, naturally adapted to amusement and pleasure, which is the object of the arts. This difference suggests an observation of considerable consequence for explaining the distinction between the two kinds of genius now under consideration. We shall find on examination, that those relations which have been already mentioned, as conducive to penetration, by the predominance of their influence on the imagination, are the relations chiefly concerned in the discovery of truth. These relations are all reducible to the different modes of causation and co-existence; and some or other of the modes of these, are the immediate subjects of most of the conclusions in the several sciences. In the science both of bodies and of the mind, the enquiry is principally about the causes of phenomena, their concomitants, the effects proceeding from

from causes, and the consequences of general laws. Many propositions in mathematics regard the properties which are co-existent in figures and numbers, or which necessarily result from their nature. Even when other relations are the immediate objects of scientific conclusions, yet it is chiefly by means of causation and co-existence that they are inferred. In mathematics, the proportions of quantities and numbers are deduced as necessary consequences from principles formerly known. In hydrostatics, the specific gravities of bodies, which are properly degrees of a common quality, are deduced from certain effects of the weight of bodies. This being the case, the predominance of these relations, causation and co-existence, as principles of association in the fancy, cannot fail to produce penetration, and to fit genius peculiarly for the subjects of science. It directs the mind into the very track where truth lies; it furnishes it with the very instruments by which truth may be discovered.—It is no less true, that those which have been mentioned as the more trivial relations, and by their prevalence conducive to brightness, or some of them at least, are most adapted to the object and the end of the arts. The fine arts
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are commonly called imitative : were they all purely and totally such, there could be no difficulty in pronouncing that resemblance is the relation which would lead fancy to contrive works of art. In painting, for instance, which is strictly imitative, the figures, the attitudes, the expression, the colouring, are but so many means of rendering the picture a just and striking representation of the standard, whether actual or ideal, which the artist had in view ; and the conception of this standard suggests them all to the fancy by the associating principle of resemblance. But even in cases where the arts are least imitative, it will appear on attention that this principle is predominant. A discovery in science is sometimes described poetically : such a description will, perhaps more clearly and strikingly than any other instance, show how much poetry is employed about resemblances, and consequently how essential it is to poetic genius, that this be the predominant principle of association. Thomson thus describes Newton's optical discoveries ;

Even light itself, which every thing displays,
Shone undiscover'd, till his brighter mind
Untwisted all the shining robe of day ;
And, from the whitening undistinguish'd blaze,
Col-

Collecting every ray into his kind,
 To the charm'd eye educ'd the gorgeous train
 Of parent-colours. First the flaming Red
 Sprung vivid forth; the tawny Orange next;
 And next delicious Yellow; by whose side
 Fell the kind beams of all-refreshing Green.
 Then the pure Blue, that swells autumnal skies,
 Ethereal play'd; and then, of sadder hue,
 Emerg'd the deepened Indico, as when
 The heavy-skirted evening droops with frost,
 While the last gleamings of refracted light
 Dy'd in the fainting Violet away (b).

All that is poetical in the description, is produced by the metaphors and comparisons, (evidently suggested by the principle of resemblance) which are here introduced, and implied in such expressions as these, *untwisted all the shining robe of day—the gorgeous train of parent-colours—the flaming red—the tawny orange—kind beams of green—blue that swells autumnal skies, ethereal play'd—indico of sadder hue, as when the heavy-skirted evening droops with frost—dy'd in the fainting violet away* (c).

WHATEVER relation is the predominant principle of association in a particular person,

(b) Poem to the memory of Sir I. Newton, ver. 96—111.

(c) The same observation is applicable to his description of the Rain-bow, immediately subjoined, ver. 112—115.

that

that person is always disposed to fix his attention chiefly on those qualities in objects which lay a foundation for that relation; and he is disposed to consider every quality in the light in which it is fittest for suggesting ideas by means of that relation (*d*). This disposition is, perhaps, one cause of the predominance of a particular associating principle: it certainly adds to the force of the predominant principle, and assists it in forming a correspondent turn of genius. The man, for instance, whose imagination is under the influence of causation and co-existence, not only strongly feels the force of these relations when they are perceived, but is also prone to perceive them, prone to consider every object before him, in that attitude in which it can most readily suggest its causes, its effects, its concomitants, and the like. This will contribute very much to render his genius penetrating; both to direct it to the investigations which belong to science, and to fit it to enter deeply into them. He is continually busy in turning every object that comes in his way, to some use in the discovery of truth. He has the same advantage for invention, that the merchant who is intent on every oppor-

(*d*) See above, Part II. sect. 7.

tunity of gain, has for enriching himself. Just so, if resemblance be the predominant principle of association, the mind, continually in search of resemblances, will eagerly set every object in such a point of view that it may suggest them; and consequently it will be successful in finding them out, and exhibiting them, as well as strongly affected by them when they are found. The colours of light refracted by the prism, have been observed by the poet, as well as by the philosopher, but they are considered by these in different points of view, lead them into very different trains of thinking, and are applied to very different purposes. Pope applies them as an image for illustrating a resembling subject, and is led away quickly from the contemplation of them to that subject;

False eloquence, like the prismatic glass,
 Its gaudy colours spreads on ev'ry place;
 The face of Nature we no more survey,
 All glares alike, without distinction gay:
 But true expression, like th' unchanging sun,
 Clears and improves whate'er it shines upon,
 It gilds all objects, but it alters none (e).

The observation of them gave Newton's mind a very different impulse: his attention was

(e) Essay on Criticism, ver. 311—313.

fixt upon these colours themselves; he considered them as an effect which requires a suitable cause, and was led to contrive a curious set of experiments for ascertaining that cause. Some of these experiments exhibit phenomena which the poet might describe for their own sakes, or the painter find an occasion to represent on canvass: but Newton attended only to those circumstances which indicated some of the laws of light and colours; and how strongly he was impelled to attend to these, any person may judge by recollecting what a prodigious number of appearances and circumstances, minute in themselves, and, abstracted from the investigation in which he was engaged, unimportant and uninteresting, he took notice of, and delineated with scrupulous exactness, in his several experiments.

INDEED, as we observed formerly (*f*), no one principle of association is sufficient for invention on any subject, alone, or without the assistance of other principles, acting in subordination to it. On this account, the predominance of resemblance, or of causation and co-existence, appropriates genius to the arts or to the sciences, not merely by the exertion of these principles themselves, but also

by determining other associating principles to act in subservience to them. There are two ways in which one associating principle may make others act in subservience to it.

FIRST, It may determine them to suggest chiefly such ideas as are suitable to it, and applicable to its purposes. Very various ideas are connected with any present object by the same relation; all these are in themselves equally fit to be suggested by that object: but if some of them correspond to the predominant principle of association, or to the design which it leads a person to propose and to keep in view, these will be introduced in preference to others which have no such correspondence. A double relation belongs to them, and draws them into view by a double power. The subordinate principles exert themselves by their own force; but the predominant one gives their exertions a particular direction; it likewise makes them, in that direction, act with greater vigour than they would in any other; it, as it were, infuses its own spirit into them. In genius for the arts, resemblance, the predominant principle of association, continually operates along with all the other principles, and, by uniting its force to theirs, causes them suggest only, and suggest quickly,

such ideas as are conducive to the imitation or representation which the artist has in view. The attributes, qualities, and circumstances of any subject, are connected with it by co-existence, and are naturally suggested to the imagination by this relation: the predominance of resemblance as an associating principle in the poet or the painter, will make these to be suggested, whenever they are necessary for marking distinctly the object which he describes or represents; and it will make those of them to occur most readily which are properest for this purpose, even though they be in themselves remote. Nealcus painting a naval engagement between the Egyptians and the Persians, and wanting to intimate that it had happened on the Nile, the waters of which are of the same colour with the sea, contrived to accomplish his aim, by drawing an ass drinking on the banks, and a crocodile endeavouring to surprize him (g). In every good picture, in every good poetical description, we perceive the influence of co-existence operating on the imagination, under the di-

(g) Siquidem cum prælum navale Ægyptiorum et Persarum pinxisset, quod in Nilo, cujus aqua est mari similis, factum volebat intelligi; argumentoque declaravit, quod arte non poterat: asellum enim in litore bibentem pinxit, et crocodilum insidiantem ei. *PLIN. Nat. Hist. lib. xxxv. cap. 10.*

rection of resemblance : whenever it does not operate, precision is wanting, nothing is appropriated, every thing is common and indeterminate ; whenever it is not directed by resemblance, there are superfluous, useless, or ill-adapted circumstances. A defect in the former respect, produces poverty of genius ; a defect in the latter respect, irregularity. Both defects are observable in some works even of the most ingenious artists, and are acknowledged to take something from their merit, and to indicate a failure in the exertion of genius. It has often been remarked as a blemish in Pope's *Windfor Forest*, and it has sometimes been urged as a proof of his not having much genius for descriptive poetry, that he describes rural beauty in general, rather than the peculiarities of that place ; the apology made for him by his advocates, that the place had at that time few peculiar beauties, supposes the justness of the principle on which the remark proceeds, and, if it be allowed, will imply that the subject was ill-chosen for a display of poetic genius ; and will thus confirm the observation which we have made. Cowley's poem *On the Queen's repairing Somersset-house*, is rather a minute delineation of its situation and the objects

furrounding it, than a poetical description by a proper selection of its beauties. Every epithet which is as applicable to almost any other subject as to that to which it is applied, every description which is vague and not characteristic of its original, every character that is not distinctly marked, is an instance of the former defect in genius. Every circumstance in a description which counteracts the effect of the whole, or even which contributes nothing to it, every incident not sufficiently connected with the main subject, is an instance of the latter. Either of these defects, if it be great and permanent, is acknowledged to be inconsistent with any considerable degree of real genius.—What has been said concerning co-existence, may be easily applied to all the other relations. For instance, no performance in any of the arts, can be carried on without the introduction of causes and of effects; it is often by means of these that the subjects are marked, and a distinct resemblance or representation of them produced. The principle of resemblance, keeping the artist intent on the production of this, will render causation active in suggesting ideas conducive to it; we shall perceive in his work many illustrations of things by their causes or their consequences,

consequences, which show that the associating principle of causation has been very active; and we shall perceive the fitness of them all for giving a precise and lively conception of the object, which shows that its activity was influenced and directed by resemblance. In consequence of both these circumstances, the piece is both rich and correct. In the greatest part of poetical descriptions, one principal means of conveying a striking description, is the suggestion of causes or effects: in the very first description in Thomson's *Spring*, it is almost the only means employed;

And see where furly Winter passes off
Far to the north, 'and calls his ruffian blasts:
His blasts obey, and quit the howling hill,
The shattered forest, and the ravag'd vale;
While softer gales succeed, at whose kind touch,
Dissolving snows in livid torrents lost,
The mountains lift their green heads to the sky (*b*).

In like manner, the predominance of resemblance makes contrariety to suggest, not any ideas which happen to bear that relation to the present object, but such as form contrasts and oppositions fit to render the conception of it clearer and more striking. All the contrasts which are approved, in painting, in

(*b*) Ver. 11—17.

344 *Of the Structure of Imagination* PART III.
music, or in poetry, are such as contribute to this purpose. As it is thus essential to genius for the arts, that all the associating principles act in subordination to resemblance, so their acting in this subordination, with vigour and quickness, must contribute greatly to brightness and richness of imagination: they are like a multitude of servants, busied in providing abundance of all things for their prince. The degree of perfection in genius, will always be proportioned to the vigour of all the associating principles, and the strictness of their subjection to the leading one.

AFTER what has been said, it will be easy to explain, how causation and co-existence, the one or the other of which is always the predominant principle of association in scientific genius, determine all the other principles to introduce such ideas as lead to the discovery of truth, and, by imparting vigour to them while they act in this direction, enable them to introduce such ideas readily and in abundance. It will be sufficient to illustrate this, with respect to one principle of association. In every sort of scientific genius, resemblance must have considerable influence on the imagination; in mathematics, similitude of ratios is often a means of invention; in philosophy,
one

one experiment suggests others which have a likeness to it, and one conclusion leads to another analogous conclusion. The present object might suggest many others, by means of their resemblance to it, which would contribute nothing to a new discovery: it is when the predominant principle of association, acting powerfully on a person, fixes his attention on the reference of the present object to the discovery of a particular truth, and, in consequence of this, makes it suggest only such, from among the similar objects, as have the same reference, that the principle of resemblance promotes penetration, and contributes to the fertility of scientific genius. Experiments in electricity have gradually and successively suggested a great multitude of other experiments on the same subject; all these experiments have been frequently repeated by many persons; the several circumstances of them have been accurately observed and recorded; and they have been surprisingly varied: but very many of them serve only to diversify the appearances, to astonish or amuse, but lead not to any discovery concerning the nature, the cause, or the laws of electricity. Some of those who have made the most experiments, deduced no general conclusions

conclusions from them, or were inaccurate and erroneous in those which they attempted to deduce: they possessed, in a considerable degree of strength, the associating principle of resemblance, and those other associating principles which were necessary for leading them from one experiment to another, and for enabling them to contrive and conduct experiments, but they were defective in those principles of association which must be predominant in order to form a genius for scientific deductions, and without acting in subordination to which, these former cannot promote this purpose. Others have deduced some general conclusions from some of their experiments, but have likewise made many experiments which tend to no such conclusions: in them the principles of association which must take the lead in forming scientific genius, have had some degree of force, yet not force enough to render them uniformly and habitually predominant; and in consequence of this the other associating principles have acted in subordination to them, only in some instances, not constantly or in all their experiments. There is no electrician who has displayed a greater share of real scientific genius, than Franklin. His experiments

ments are not so numerous as those of many others : this proceeds not from an inferiority to any, in the species of ingenuity requisite for contriving and conducting experiments ; on the contrary in all his experiments there is a peculiar neatness, beauty, and variety ; but it proceeds from his possessing the associating principle of causation in very great vigour, so that it constantly exerts itself, and makes all the other associating principles act in perfect subservience to it. Accordingly there is scarce one of his experiments superfluous, unmeaning, or indefinite ; they all contribute to establish general conclusions, they are undertaken with this view, and they are conducted in the manner fittest for accomplishing it. His experiments for instance on the Leyden phial, are a regularly connected series fit for establishing the difference between positive and negative electricity, for ascertaining the several circumstances of that difference, for tracing out its several consequences, and for setting them in such lights as may render them most subservient both to the contrivance of new experiments and to the deduction of new conclusions. The effect of pointed bodies in drawing off the electrical fire, is discovered by a set of experiments well contrived

trived for the purpose ; and is immediately applied to new experiments proper for investigating the exact similarity of electricity to thunder and lightning, experiments conducted with a steady view to the establishment of this doctrine, and with the correctest subservience to it : and that similarity is applied to important practical purposes, with a readiness and address which shows a mind intent on investigating effects and consequences, actuated by that associating principle which instigates to the investigation of them, putting in motion all the other principles which lead to the means of prosecuting that investigation, and making them operate with vigour in the use of these means (i).

SECONDLY, As each of the associating principles is susceptible of various modifications (k), the predominant principle may make the rest act in subordination to itself, by disposing us to be affected by those modifications of them, which are most coincident with it, and fittest for promoting its designs. This seems to be one of the chief ways in which the predominant principle determines any other principle

(i) Facts amply sufficient for supporting all the observations made in this illustration, will be found in PRIESTLY'S *History of Electricity*, Part I.

(k) See Part II. sect. 6.

to suggest some ideas in preference to others ; and therefore the taking notice of it, serves to explain farther the observations made under the last head. When we consider how many and how dissimilar modifications every associating principle admits, we must be sensible that the power of the predominant principle to modify the others suitably to its own designs, will introduce great variety into their effects, and give birth to very different kinds of genius. Resemblance, for instance, which is the leading instrument of invention in the arts, is often a subordinate instrument of invention in science. But resemblance is of very different kinds. The resemblances which influence the poet or the painter, are for the most part such as belong to the sensible qualities or the general appearances of things, such as are striking, and such as the artist can make to be easily and strongly conceived by others. Such resemblances are of little consequence in the investigations of science, and have little influence on the imagination of the philosopher. It is his aim to discover causes, laws, or effects : intent on this, he observes, and is affected by, such similitudes as regard the manner of conducting experiments, such as are indications of things proceeding

ceeding from the same causes with the present object, or from similar causes, of their being produced in the same manner, of their having similar consequences, or of their bearing similar relations to any object, and the like. Such sorts of resemblance are congruous to the predominant principle of causation; they are subservient to its operations; they are the sorts which make one proportion, one experiment, or one conclusion suggest others: and that principle causes these, rather than other sorts of resemblance, to act vigorously and pour in ideas upon the mind. One can conceive many objects which the appearances of light refracted by the prism, would have naturally suggested to a poet; but they would have all been such as bear some resemblance or analogy to these appearances themselves. The prismatic experiments suggested to Newton other experiments or observations on bubbles and plates of air, of glass, and of water, on speculums, on heated steel, melted metals, coloured powders, salts, vitriols, alum, borax, nitre, camphire, diamonds, and a great variety of other substances. None of them would have come within the range of poetical genius; some of them are too exactly similar to serve for images or comparisons,

rifons, others are too remote to be applicable, in their obvious appearance, to the purpose of illustration, others have nothing fit to strike the fancy, or to promote the poet's views: but they were the very trials applicable to Newton's design; and his predominant principle of association, keeping that design fixedly in his view, excited and gave vigour to the sorts of resemblance which could suggest objects subservient to it. In like manner, the relation of cause and effect, which is a leading principle of association to the philosopher, is very often employed by the artist as a subordinate principle; and, by being in him subordinate, it is modified in particular ways: he is influenced, not by every species of it, but by those species which can enliven or define the representation of an object. The philosopher is affected, for instance, by the closer and more proper kinds of causation; these alone are of use in his designs: the poet is most frequently affected by the less proper kinds, and the remoter degrees of this relation; these are generally the fittest for entering into striking descriptions. This will also hold true of co-existence; it is of little use to the philosopher, and is little employed by him, except in its strictest forms; it is used

by the artist in all its forms, chiefly in such as are more loose. Contrariety is employed both in science and in the arts, as a subordinate principle of association; but different kinds of it operate in these two subjects, according to their congruity to the predominant principle in each, and their subservience to the respective ends of each. The philosopher is influenced chiefly by contrarieties in the causes and the effects of things; a genius for the arts, though not insensible to these, is also, and perhaps more, affected by oppositions and contrasts in the appearances of things themselves.

THUS in every kind of genius, the principle of association which is in that kind predominant, keeps the end in view, renders the mind intent upon it, gives it a disposition to run into what can promote it, and to reject what is unserviceable for it: by means of all this, that predominant principle gives all the other principles a propensity to suggest such ideas, and to assume such forms as are most coincident with it, and most subservient to the end of the work. In every kind of genius, all the associating principles must operate vigorously: but the predominant principle operates by its own inherent vigour,
like

like the sun which shines with his own light ; and the subordinate principles may be compared to the moon, which shines with borrowed light, and reflects it only on that side which is turned to the sun ; they have their vigour imparted to them by the predominant principle, and they act in a direction suitable to it. It will confirm the justness of this distinction, and farther illustrate our subject, to observe, That the constant operation of the predominant principle along with the subordinate ones, is always clearly perceivable, not only in the subservience which it gives these to its designs, but also in the separate effects which it produces. Let one experiment, for instance, suggest a similar one to a philosopher, he not only applies it to the investigation in which he was professedly engaged ; but, if it suggest any other conclusions by means of any of its circumstances, he readily takes notice of them also, and thus shows how much and how uninterruptedly the relation of cause and effect influences his imagination. Innumerable instances of the imagination being in this manner influenced, might be collected from the works of philosophers. To hint but at a very few ; Newton rested not in applying his optical

experiments to the discovery of the properties of light and colours, which was his immediate view in making them, but considered also how they might be applied to the explanation of animal motion, attraction, and other phenomena (*l*). Wheeler having found by experiments, that bodies to which electricity is communicated, repel one another, was led by the circumstances of these experiments, to observe, that it suggests a reason for a very different phenomenon, for the dissolution of bodies in menstrua, viz. that the particles of the solvend, having imbibed particles of the menstruum, so as to be saturated with them, the saturated particles become repulsive of one another, separate and fly to pieces (*m*). Desaguliers was led in like manner to think of transferring the result of his electrical experiments, to account for the fixing of air by steams of sulphur, and for the ascent of vapours (*n*). And later electricians have thought of applying their experiments and conclusions to account, not only for thunder, lightning, and meteors, but also for water-spouts, hurricanes, and earthquakes (*o*). A poet

(*l*) *Optics*, Qu. 24. 31, &c.

(*m*) PRIESTLY'S *Hist. of Electricity*, Part I. per. 4.

(*n*) *Ibid.* per. 6.

(*o*) *Ibid.* per. 10. sect. 12.

sometimes introduces a series of causes and effects; but he always describes them in a manner different from the philosopher: how much his imagination is under the power of resemblance, appears from his illustrating every part of the description by epithets, images, metaphors, and comparisons. The passage already quoted from Thomson, concerning the prismatic image, may serve as an illustration of this. Many other examples might be produced (*p*).

(*p*) Many passages in Lucretius, of which the subject is purely scientific, are in this manner rendered beautifully poetical. Whenever Virgil introduces a subject of science, the prevalence of a poetic genius is conspicuous through the whole of it. The two following passages are instances of this.

Iccirco certis dimensum partibus orbem
 Per duodena regit mundi sol aureus astra.
 Quinque tenent cœlum zonæ: quarum unum corusco
 Semper sole rubens, et torrida semper ab igni:
 Quam circum extremæ dextra lævaque trahuntur,
 Cærulea glaciæ concretæ, atque imbribus atris.
 Has inter, mediamque, duæ mortalibus ægris
 Munere concessæ divûm: et via secta per ambas,
 Obliquus qua se signorum verteret ordo.
 Mundus ut ad Schythiam Riphæasque arduus arceis
 Confurgit; premitur Libyæ devexus in Austros.
 Hic vertex nobis semper sublimis: at illum
 Sub pedibus Styx atra videt, Manesque profundi:
 Maximus heic flexu sinuoso elabitur anguis
 Circum, perque duas in morem fluminis Arctos:
 Arctos, oceani metuentes æquore tingi,
 Illic, ut perhibent, aut intempesta silet nox
 Semper, et obtenta densantur nocte tenebræ:
 Aut redit a nobis Aurora, diemque reducit:

ONE remarkable difference between the two kinds of genius, remains yet to be mentioned. In scientific investigations, the imagination can receive no assistance from the passions : few passions can mix with these investigations ; and if these few were allowed to interfere, they would infect our conclusions, and obstruct our discoveries. Where truth is the object, the passions can produce only prejudices fit to lead away from it. But genius for the arts can never exist where the passions have not great power over the imagination, in affecting the train and association of perceptions. An imagination easily affected by the passions, is peculiar to genius for the arts ; and it is essential to it in all the forms which it can assume. There is scarce any of the fine arts which is not susceptible of the pathetic, and in which the pathetic is

*Nosque ubi primus equis oriens afflavit anhelis,
Illic fera rubens accendit lumina Vesper.*

Georgic. lib. i. v. 231.

*Me vero primum dulces ante omnia Musæ
Quarum sacra fero ingenti percussus amore,
Accipiant ; cœlique vias, et sydera monstrent :
Defectus Solis varios, Lunæque labores ;
Unde tremor terris : qua vi maria alta tumescant
Obicibus ruptis ; rursusque in se ipsa residant :
Quid tantum oceano properent se tingere soles
Hybernæ, vel quæ tardis mora noctibus obstet.*

Lib. ii. v. 475.

not a capital excellence. In painting, in music, in poetry, in eloquence, it is often necessary to express the passions and affections of the soul: they can be expressed only by the person whose sensibility of heart enables him to conceive the passion with vivacity, to catch it as by infection, and whose imagination immediately receives an impulse from it, and pours in the ideas of the proper characters of the several passions, of those effects, imitable in the particular art, by which each passion naturally shows itself. Every artist must often excite the passions: they are excited chiefly by being well expressed: they are excited also by strong representations of their objects and their causes; but it is the fancy, excited by the lively conception of the passion, running into the same thoughts which the passion, if really working, would suggest, and placing the artist in the situation in which he would then be, that puts it in his power to imagine, and consequently to represent, its causes and its objects in a way proper for infusing it into others (*q*).

(*q*) Summa enim (quantum ego quidem sentio) circa movendos affectus in hoc posita est, ut moveamur ipsi.—Nec incendit nisi ignis, nec madesimus nisi humore: nec res ulla dat alteri colorem, quem ipsa non habet. Primum est igitur, ut—afficiamur antequam afficere conemur. At quomodo fiet

IN these several ways, brightness and penetration, a genius for the arts and a genius for the sciences, arise from a difference in the turn and construction of the imagination.

S E C T. III.

How the two Kinds of Genius differ in respect of the Assistance which they derive from Memory.

BOTH in genius for the arts, and in genius for science, imagination is assisted by memory, operating in subordination to it, and operating continually along with it. But it is not, in these two kinds, assisted equally by memory, nor assisted by the same species of memory.

ut afficiamur? Neque enim sunt motus in nostra potestate. Tentabo etiam de hoc dicere. Quas *φαντασίας* Græci vocant, nos sane visiones appellemus: per quas imagines rerum absentium ita repræsentantur animo, ut eas cernere oculis, ac præsentibus habere videamur: has quisquis bene conceperit, is erit in affectibus potentissimus. Hunc quidem dicunt *εὐφαντασιώδης*, qui sibi res, voces, actus, secundum verum optime finget: quod quidem nobis volentibus facile continget.—Insequetur *ἐνσπύρεσις*, quæ a Cicerone illustratio et evidentia nominatur: quæ non tam dicere videtur, quam ostendere: et affectus non aliter quam si rebus ipsis intersimus, sequentur. *QUINT. Inst. Orat.* lib. vi. cap. 3. Sed cum sint alii veri affectus, alii ficti et imitati,—hi carent natura, ideoque in his primum est bene affici, et concipere imagines rerum, et tanquam veris moveri. *Ibid.* lib. xi. cap. 3.

IN scientific invention, memory is exerted in a much greater degree, and its assistance is more indispensably necessary than in the arts. All the experiments, all the observations, all the principles, employed in philosophical investigations, must be such as have been actually observed or ascertained, and are exactly remembered, else they can be of no use for establishing a just theory. Memory must attest the phenomena as really observed, and the principles as already verified, and produce a full conviction of their having been observed and verified, else the philosopher would never think of applying them to the support of his theory. Phenomena not experienced, but imagined, could lead to none but chimerical conclusions. At one time electricians imagined that they saw in their experiments the power of electricity affected by the colours of bodies, and light bodies performing a regular motion from west to east round an electrified ball (*a*): had these facts been taken for granted, and conclusions deduced from them, the conclusions must have been altogether fanciful. Often indeed men can in some degree imagine beforehand what will be the result of an experiment, or what the appearances which it

(*a*) PRIESTLY'S *History of Electricity*, Part I. per. v.

will disclose ; nay, cannot restrain themselves from conjectures concerning this. But it is only intimate acquaintance with the subject, extensive knowlege of the laws of nature, accurate remembrance of the appearances which have attended analogous experiments, discernment of the variation of circumstances in the experiment proposed, and judgment of the probable consequences of that variation, that can enable them to conjecture right. Some of Bacon's anticipations, and many of Newton's conjectures in his queries, were just, and have been since established by actual trials. But if, without these requisites, by the mere force of imagination, a person venture to guess in this manner, he will almost certainly guess wrong ; and, if he proceed to reason from it, will produce a fantastical hypothesis. Scarce any man can possess the requisites mentioned, in so great a degree, as to render it safe for him to build upon the supposed result, without first bringing it to actual trial, and making himself certain of the fact. Even when a man may naturally think that he has the best foundation for his conjecture, the result may, on trial, turn out not only different, but directly opposite. When all the experiments at that time made seemed to show, that the
electrical

electrical fire is contained in the glass itself, and when it was known that the earth or a floor draws off this fire from a globe or tube in which it has been excited, it was natural to conjecture that the electrical power would be strengthened by preventing its being thus drawn off, by supporting the machine and the operator on some substance which is not a conductor of electricity; the conjecture was formed by several electricians, and was in the highest degree plausible: but when they made the trial, the very reverse of their expectation happened, the power was very much weakened; and this unlooked for effect led some of them to correct the specious error which had occasioned their conjecture, to conclude that the electric fire is only collected, not produced, in the glass by friction, and to discover the twofold electricity, the positive and the negative (*b*). Facts imagined, or rashly taken for granted, have produced numberless errors in science. All the facts on which true science can be built, must be exhibited by memory; the operation by which they are immediately applied, is recollection. This recollection is indeed under the influence of a

(*b*) PRIESTLY'S *Hist. of Electricity*, Part I. per. vii. and per. viii. sect. 3.

piercing imagination. Imagination excited by a present perception, puts us upon searching for the proper experiments and observations; it is often by relations fit to affect itself alone, that it gives us the first hint of these, but memory is the power which it sends, as it were, in search of them, and by means of which it finds them. Imagination instigates us to recollection, and gives our recollection the proper aim; but it is by memory that this aim is accomplished. It is the only guide to *truth*, the object and the end of science.

It is not so in the arts. When the painter draws a figure or a landscape, when the poet conceives a description, a character, or an event, it may be such as he has really observed, and remembers, and may be only by fancy drawn out of the repository of memory, and applied in the proper place. But it is not of importance whether it be or not; its being attested by memory, its being exactly like to something observed, are not the circumstances to which the artist principally attends: though it has never been observed, it may be productive of *beauty*, and this is all that is required in the arts. Human invention is not so fertile, as to be able to diversify its productions sufficiently, without ever employing
memory

memory to copy from the reality of things; and therefore this latter faculty is a necessary and useful auxiliary to fancy (c). Many figures and scenes in the works of the most original painters, are such as they remembered to have seen: many descriptions, characters, and details, in the works of the most inventive poets, are such as memory retained. Even Michael Angelo is said to have transferred into his *Last Judgment*, several entire figures from the paintings of Luca Signorelli. Giacomo da Porte took the ideas of most of his figures in very numerous and highly esteemed history-paintings, from his own family and acquaintance. Francisco Albani designed his Venuses and his Cupids by his own wife and children. Most of the fables of Shakespear himself, are such as he found already contrived. But when fancy has force enough to produce scenes, figures, characters, fables, or beauties of any kind, without that aid from memory, we are so far from being displeased with the want of it, that, on the contrary, pro-

(c) It is a just observation of the ingenious and elegant author of *A Critical Dissertation on the Poems of Ossian*, "Truth makes an impression on the mind far beyond any fiction; and no man, let his imagination be ever so strong, relates any events so feelingly as those in which he has been interested; paints any scene so naturally as one which he has seen; or draws any characters in such strong colours as those which he has personally known."

vided memory and judgment have been consulted so far as to enable fancy to represent things as they may have been, we regard genius as the greater and the more original for not standing in need of farther aid. Deviations from the reality of things, which would disgrace science, and be absolutely inconsistent with its genuine end, contribute to perfection in the arts.

GENIUS for science and genius for the arts, are likewise assisted, principally, by different species of memory. A capacity of strongly remembering separate objects, is far from being unnecessary in the investigations of science: many of the phenomena which Nature exhibits, or which experiments disclose, are simple objects; and every phenomena must be attended to and retained, else the consequence will be, either that no conclusion can be formed, or that the conclusion must be wrong. But a turn for accurately remembering the connexions of things is likewise absolutely necessary, and of capital importance. To retain lively ideas of the several separate appearances, will contribute little to promote science, except we also have observed and remember the precise situation in which the appearances occurred, all the circumstances

cumstances which attended them, what appearances preceded, what were consequent, and what contemporary, how they came on, varied, and again went off. That fluids ascend in exhausted tubes, was always known ; but no legitimate conclusion could be drawn from this appearance, as long as it was taken for granted that they would ascend to any height : it was only when the exact heights to which they rise were observed, that a discovery was made of the cause of their ascent, the pressure of the air ; a discovery which has led forward to many others both curious and useful. Phenomena imperfectly observed, can produce no just conclusions ; and a confused or imperfect remembrance of phenomena, will obstruct the justness of the conclusions, as much, and in the same ways, as if some of their essential circumstances had been wholly overlooked.

IN the arts, the memory of separate objects must be very strong and lively : the artist must conceive them strikingly, that he may be able to represent them strikingly. Memory of the connexions of things is often of great utility : but it is not always absolutely necessary to retain all their real connexions with precision.

Even in a professed imitation of a real object, a full and minute exhibition of all its circumstances is not insisted upon; a selection of such as, according to the art by which the imitation is made, will produce the greatest beauty, is not only allowed, but approved. In a portrait or a landscape, likeness to the original is indispensable; yet in both it is expected that real genius will set that original in an advantageous light, heightening its excellences, and extenuating its defects. What has been observed in one situation, is often accommodated by the artist to his own subject; but he is at liberty to represent it independent of the things in connexion with which it was observed, to transfer it into a different situation, and to alter many of its circumstances; nay, if he take not this liberty, he will be blamed as too servile and painful a copier of Nature, and accused of poverty of invention. Though the artist's remembrance of real things be accurate, fancy must not borrow the whole, but snatch what suits its purpose, and make it its own. A species of memory more accurate than it is allowed to make use of in the arts, cannot be reckoned necessary to genius for the arts: on the contrary, it might hurt

hurt this genius, by leading into minute details, and too circumstantial descriptions or delineations.

THE natural appearances which are useful in productions in the arts, must always be such as are in some respect striking. To render memory, therefore, subservient to genius for the arts, it is sufficient that it be fit for retaining ideas of such appearances as have made a strong impression on the senses, as have forced attention, as have pleased taste, as have excited some passion or emotion, as have seemed peculiar and distinguishing. It is in a person whose perceptions are readily rendered strong and durable by these circumstances, that memory will be qualified for depositing materials fit for being employed in the arts. But the appearances which are of importance in scientific investigations are of a different sort, generally noways striking in themselves, often apparently inconsiderable. The perceptions of them being thus weaker than those of the other sort, a greater natural strength of memory is necessary for retaining them. The memory must likewise be turned for deriving strength from such circumstances as suit the nature of these appearances. The mind must be prone to close and continued
attention,

attention, that this may infix in the memory perceptions too weak for laying hold of it by their own power. It must be prone to suppose importance in appearances seemingly trifling and unpromising ; to look forward to their tendency and consequences with a high curiosity and eager pre-expectation, that, if they turn out in the manner that was looked for, the gratification of that principle may impress them indelibly on the mind, or, if they turn out otherwise, that principle may be again excited, which will impress them no less indelibly. It is when circumstances of this kind have the principal influence on rendering remembrance strong, that memory is fit for giving assistance in scientific discoveries. In the writings of every person who has been remarkable for such discoveries, we perceive plain evidences how much power these circumstances had over his mind.

THE connexions of things which must be represented in the arts, are not the same with those connexions which must be observed in the sciences. The artist is concerned chiefly with the resemblances of things, and these of the more sensible and striking kinds ; and, in subordination to these, with their obvious contrasts, their peculiar and discriminating circumstances,

cumstances, and their more signal causes and effects: the philosopher is concerned with their causes, effects, and laws; and, as conducive to the discovery of these, with their precise qualities and adjuncts, their more hidden similitudes and analogies, and their more secret differences and contrarieties. Memory is adapted to genius for the one, or genius for the other, according as it is turned most for being affected with the former sort of connexions, or with the latter.

S E C T. IV.

How the two Kinds of Genius differ in respect of the Assistance which they derive from Judgment.

BY imagination, with all the assistance which it can receive from the best adapted memory, neither brightness nor penetration is completed. But in this respect there is a considerable difference between them. Some degree of brightness may arise merely from the imagination; but no degree of penetration can; the lowest degree of this cannot possibly exist without acuteness of judgment. Accordingly, though we may with great propriety speak of brightness of fancy, it would

be absolutely improper to use any expressions which implied our ascribing penetration to this faculty alone.

THAT judgment assists genius of every kind, in suggesting such ideas as suit the purpose, was formerly shown. In the sciences, in producing the materials fit for the investigation of truth, this assistance is indispensably necessary. The decisions of judgment concerning objects or ideas already produced, considered, and compared, suggest to the imagination other ideas associated with these decisions, and fit for carrying forward the investigation. Judgment is employed in giving such decisions, at every step that is taken; and they are the only means by which we can be carried forward another step. In the arts too, the decisions of judgment do often suggest new ideas; but the ideas absolutely necessary may, in many cases, be suggested by other means. A rapid imagination often, without giving judgment time to interpose, pours in, by its own force, a great abundance of conceptions, so proper, that when they are afterwards reviewed, the acutest understanding, and the nicest taste, can scarce find fault with them. In the arts, this rapidity of imagination, which waits not for the interposition of judgment, often

often produces a noble boldness and freedom of manner ; in science it could produce only absurdity and error.

IN science, an acute and vigorous judgment is necessary for making any use of the conceptions which imagination has suggested. It is the precise business of science to deduce conclusions from certain observations, experiments, or ideas ; but the deduction of these is altogether the work of judgment, and will be performed with greater or less advantage, in proportion to the degree of its acuteness. We sometimes meet with persons who are remarkable for making uncommon reflections on the tritest subjects, or drawing new conclusions from the most familiar facts : this is acknowledged to imply real ingenuity ; but it shows chiefly acuteness of judgment. The commonness of the facts or the subjects, makes no great force of imagination requisite for bringing them into view ; they had actually been in the view of hundreds : but these had not the quickness of understanding which has led to the new conclusions or reflections. Many of the facts on which Newton founds his theory of gravitation, and that of light and colours, require no great degree of ima-

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gination to bring them into view, and had actually been observed by many. That the same conclusions were not by these deduced from them, may be ascribed partly to a defect of imagination, preventing their being set in that light in which they would have readily suggested the conclusions, and partly to the want of such depth of judgment as was sufficient for deducing them. Depth of judgment contributed perhaps more than vigour of imagination, to enable that great philosopher to perceive the tendency of common facts with surprising quickness, and to trace their consequences with singular accuracy. It was in the contrivance of new experiments, proper and decisive, that the vigour of his imagination showed itself. Any one proposition in Euclid's Elements, follows necessarily from those which precede it; and the work of imagination necessary for the demonstration of it, is in a great measure performed by the laying down of these in a natural order and series. Suppose then a person perfectly master of the first forty-six propositions; he has all the principles necessary for demonstrating that the square of the hypotenuse of a right-angled triangle, is equal to the squares of the

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other

other two sides. To conceive this proposition of one's self, would, however, show a great degree of genius, a vigour of imagination as well as of judgment. If the proposition were mentioned to him, and he were informed, that it is deducible from the propositions already demonstrated, it would still require a considerable vigour of both these faculties, to conceive the figure necessary for the demonstration, and to make out the several steps of it, without assistance. If even the figure were described, it would indicate some degree of genius, immediately to perceive the whole train of the proof: but in this case, a very great part of the work of imagination is performed by the teacher; it is chiefly acuteness of judgment that is necessary for accomplishing what remains. In the more intricate parts of mathematics, it requires greater vigour of judgment, as well as of imagination, to see several steps before us; and to be capable of this, shows a higher degree of genius. Thus, from the very nature and end of scientific invention, judgment is constantly and intimately connected with imagination in all the operations of genius; and a great acuteness of judgment is necessary for

enabling genius to show itself.—But in the arts, the ideas collected are not applied to the deduction of conclusions, which is the proper work of judgment, and requires reasoning. They are applied to a quite different purpose, to the production of beauty, which imagination can in some measure accomplish by itself: and therefore it is not absolutely necessary, either that the operations of judgment be so intimately blended with those of fancy, or that so great a degree of judgment be possessed.

THERE is an essential difference between those relations which are predominant in genius for the arts, and those which are predominant in scientific genius. The former are intuitively perceivable, the latter are not. Both of them can affect the imagination and suggest ideas, by them connected with the present object, without our having previously perceived by an exercise of judgment, that these relations belong to the ideas: but it is natural for us, after ideas have been in this manner suggested, to reflect on the relation which subsists between them and the objects that suggested them, and to form judgments concerning it. Now when resemblance, the
predominant

predominant relation in genius for the arts, has suggested an image, a single glance of thought is sufficient for perceiving the reality of the resemblance; it is self-evident, it requires no sensible exertion of mind. This is not the case with the relations of cause and effect, and co-existence, the prevalent relations in scientific genius. They are not intuitive relations; they are perceived to belong to objects, only in consequence of experience; they are ascertained by a careful examination and induction. This implies a sensible and continued exertion of judgment and reason. A considerable degree, therefore, of the exercise of these faculties is rendered essential to scientific genius, by the nature of those relations about which it is ultimately conversant.

WERE these the only relations with which scientific deductions are concerned, and resemblance the only relation that affects the imagination in invention in the arts, there would be a very great difference with respect to the degree and kind of judgment necessary for assisting genius in these two provinces. But both in science and in the arts, all the relations which perceptions can bear to one another, are, in subordination to these predo-

minant ones, employed for introducing proper conceptions; and consequently there is scope in both, for the exercise of the kinds of judgment adapted to all the classes of relations. This makes the difference much less; every species of judgment may give some assistance, both in science and in the arts. Yet still the difference is very considerable: for even when the same species of judgment is employed in these two, one modification of it is useful in the one, and a different modification in the other. A judgment, for instance, adapted to the perception of mathematical truths, is in some measure necessary to the painter; but it is a judgment rather of the practical result of the truths demonstrated, than of the precise connexion of these truths with the principles on which they depend. The painter and the poet, as well as the philosopher, must pay a regard to experience; but so exact an agreement to what we have experienced, is not necessary for our approving the works of the artist, as for our admitting the conclusions of the philosopher. In general, the exacter forms of every species of judgment are requisite in science, the looser forms are sufficient for the arts; the more laborious

laborious exertions suit the former, the readier exertions, the latter; the sciences demand uncommon depth and force of reason, the arts need rather a certain quickness of discernment.

THE most remarkable difference between genius for science, and genius for the arts, in respect of the assistance which they receive from judgment, is, that taste, or the judgment of beauty, is essentially necessary to the latter, but enters not at all into the former. This is an article of such importance, that it will require a particular consideration; but some observations may be made for farther illustrating the distinction between the two kinds of genius, which are so much connected with what has been now said, that it will be proper to make them, before we proceed to that.

S E C T. V.

*The two Kinds of Genius farther compared
and distinguished.*

IT is a distinction between genius for the arts, and genius for science, implied in what we have said of the assistance which they receive from judgment, or at least easily deducible from it, That in the arts, imagination in some measure sketches the whole work; in science, it cannot. The plan of a poem or a picture may be conceived by the sole power of fancy. The associating principles may suggest abundance of materials suited to the design. The same principles will naturally give these materials different degrees of attraction, proportioned to their several degrees of relation to one another, by means of which the most nearly related will fall regularly into the same member, and the whole will acquire, in a good measure, a proper order and arrangement. The exertion of judgment will no doubt contribute much to render the work more complete; it will cut off redundancies, rectify disorders, and even supply defects:

but still without it, a picture or a poem may acquire some degree of form. In science, on the contrary, imagination alone cannot produce even the rudest draught or the most imperfect sketch of an invention: it can only suggest the materials from which judgment may collect that invention; it must put them into the hands of judgment, and subject them to its scrutiny constantly as it suggests them; and it is judgment alone that applies them to use.

THIS leads us naturally to an observation which will give us an opportunity of examining and ascertaining some sentiments and maxims concerning genius, which are sometimes expressed without sufficient precision: the observation is, That genius for the arts holds more of imagination, than scientific genius. This observation is so obvious, that it has been often asserted, That imagination is necessary only for productions in the arts, not at all for discoveries in science. In consequence of this received opinion, productions in the arts have been called exclusively, works of imagination. The opinion is not just; but it would not have been adopted so generally as it has been, if it had not, in appearance,
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a strong foundation. It was just now observed, that in the arts imagination goes farther towards perfecting its effects, than it can in science; this contributes to make its influence most conspicuous in the arts. In one view too, genius for the arts does require greater strength of imagination, than penetration requires; it implies a great delicacy and activity of the associating principles, fitting them for being affected by very slender relations: this also renders the operation of fancy more obvious and more striking. Besides, the associating principles which are chiefly implied in brightness, are more commonly referred to the imagination, than those which are predominant in penetration. The cause of this seems to be, that the former are perceived without reasoning, are applied generally to the purpose of pleasing, and, even when they give rise to judgments, occasion not any process of argumentation, but only intuitive decisions, which give little exercise to the understanding, and are scarce taken notice of; but the latter cannot be perceived without the exercise of reason, they are principally used for deducing conclusions, and the conclusions to which they lead, imply a continued,

tinued, often a laborious exercise of judgment, which cannot fail to be reflected on. Hence it is natural to regard the former as qualities which affect the imagination, and the latter as relations about which the judgment is employed; and consequently, if men do not think with great precision, to refer only genius for the arts to imagination. It may be added that genius for the arts makes use of a greater variety of associating principles than scientific genius, and employs them in a greater extent, and with less limitation: it avails itself of all the different forms and modifications of each of them, while very few forms of any of them can be rendered subservient to the investigation of truth; and it alone is influenced by the associating power of the passions. In all these respects, it may be asserted with reason, that genius for the arts holds more of imagination, than scientific genius, and that its effects may be termed peculiarly works of imagination. But it is not true, either that such genius is completed by imagination alone, or that it is the only kind that implies imagination.

SCIENTIFIC genius has been described with a like inaccuracy; it has been considered

as requiring only judgment, and not at all implying imagination. We have seen that it holds much more of judgment, than genius for the arts does : this has given occasion for ascribing it wholly to that faculty ; but it is a mistake. A very ingenious and profound philosopher has given his sanction to this mistake ; speaking of a work which indicates a very great degree of scientific genius, not only uncommon clearness and depth of judgment, but also strength and even liveliness of imagination, he disclaims genius, and intimates that the nature of his work required it not ; “ I claim no other merit, than that of
 “ having given great attention to the opera-
 “ tions of my own mind, and of having ex-
 “ pressed, with all the perspicuity I was able,
 “ what, I conceive, every man who gives
 “ the same attention, will feel and perceive.
 “ The productions of imagination require a
 “ genius which soars above the common
 “ rank ; but the treasures of knowledge are
 “ commonly buried deep, and may be reach-
 “ ed by those drudges who can dig with
 “ labour and patience, though they have not
 “ wings to fly (a).” The author’s modesty

(a) REID’S *Inquiry into the Human Mind*, Dedication.

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under-rates his own abilities, and in this instance renders his decision inaccurate. That turn of imagination which fits a person for productions in the arts, may no doubt be most properly said to soar, to fly, and to have wings. To dig with labour and patience, is a metaphor which may with equal propriety be applied to the investigation of philosophical truth; it is strongly expressive of the intense and continued exertion of judgment, which is requisite in observing all the circumstances of the several experiments, discerning which of them are essential, comparing them together, and tracing out the result of the whole: but the metaphor must not be overstrained, it must not be understood so strictly as to represent the philosopher as a mere drudge, destitute of fancy; without great vigour and activity of imagination, the experiments and observations made use of in that curious work, or in any philosophical enquiry of a like nature, could not be contrived, suggested, and arranged, so as to lay a foundation for legitimate conclusions. The *Inquiry into the Human Mind, on the Principles of Common Sense*, shows not merely great acuteness of judgment, but also a very high degree
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of that penetration in which force of imagination is an indispensable ingredient. After the author has unfolded his important discoveries, another man may feel and perceive the several operations which he describes, by giving even less attention than he bestowed, and without possessing any share of genius; but genius was absolutely necessary to the making of the discoveries. The work is not, in the ordinary sense, a production of imagination; but it displays imagination and genius, though of a different kind from what is displayed in a picture or a poem, yet soaring as much above the common rank. In science, the operation of judgment is more obvious and striking than in the arts; it is it, not imagination, that finishes the work; and therefore even that part of the work, which imagination alone can accomplish, and which indicates genius, has been ascribed to judgment.

IN commending a person, it is common to bestow all excellence upon him, and to deny others their real merit in order to exalt him. The same cause from which this appearance proceeds in ordinary life, has produced the inaccurate descriptions of genius now mentioned.

tioned. Because imagination can do a great deal in the arts, genius for them has been placed in imagination alone. Because it can by itself do little in the sciences, it has been excluded from scientific genius ; and because judgment has a great share in the whole process of every discovery which belongs to this department, all has been ascribed to it. But as a sensible man allows those whom he commends, their proper kind and precise degree of merit, so we ought, with a just discernment, to give each of these faculties its real share in forming every kind of genius.

GENIUS has been defined by some to consist in the union of a fine imagination and a fine judgment. According to them, its origin may be referred with equal propriety to either of these faculties, or rather a great perfection of both is alike necessary for its existence. The extensive influence of judgment in producing works of genius has given occasion to this definition. But genius ought notwithstanding to be considered as a modification of the imagination. It is no reason against our considering it in this light, that judgment attends it in all its exertions. It has been observed already, that intellectual powers,

essentially distinct in themselves, are frequently complicated together in their exercise. Reason, for instance, cannot perceive the evidence of a demonstration, except memory be exerted in retaining the several steps: forgetfulness of these would as effectually prevent our obtaining a conviction of the truth of the conclusion, as an incapacity of discerning the evidence of any of the propositions included in the proof: but it would be improper, on this account, to confound reason with memory. In like manner, though genius needs the assistance of judgment, yet it ought to be considered as a faculty distinct from judgment. Genius consists essentially in the vigour and in a particular economy or construction of the imagination: it is in this that a man must excel, in order to be eminent for genius: where Nature has bestowed this in a considerable degree, an uncommon accuracy of judgment is not requisite for founding a claim to real genius; a moderate share of it will be sufficient.

COULD the description be at all admitted, it would be applicable only to scientific genius. With respect to this species, the extensive and continued exercise of judgment
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in prosecuting discoveries, gives the description a considerable appearance of propriety. Yet even here it has not entire propriety. A person may possess strength of judgment in a very high degree, and the kind of judgment perfectly adapted to science, and yet be destitute of scientific genius: he may be an accurate critic on the investigations of others, and yet himself no inventor. Many persons who could never have made original discoveries, have explained the discoveries of others with great distinctness, and decided between contending theories with great acuteness and solidity. On the contrary, a person who possesses that particular form of imagination which fits for scientific discoveries, is never wholly destitute of scientific genius; no such person is ever found without a degree of judgment sufficient for enabling him to make some discoveries. If his judgment be not so deep and sound as to prevent his falling into mistakes, yet his investigations will show ingenuity notwithstanding his mistakes. The theories of Des Cartes, Leibnitz, Malebranche, Berkeley, must be acknowledged to be ingenious, though in many particulars they be not just: these philosophers

had genius, they possessed very considerable powers of imagination, but not judgment proportionably piercing. Even in scientific genius, therefore, imagination is the leading faculty: where it prevails and is suitably constructed, such genius is never totally wanting; and without this, no degree of such genius ever can exist.

BUT in genius for the arts, an uncommon strength of judgment is so far from being necessary, that a degree of imagination which would have produced genius, if it had been joined to an ordinary judgment, may be rendered abortive, and unable to display itself, by being united to a very nice judgment. The great acuteness of this faculty will discover every the smallest blemish in what fancy produces, and will, by scrupulously canvassing it and requiring greater excellence than the imagination can attain, extinguish its ardor, and make it give over attempting to invent, or else enervate its inventions, deprive them of force and spirit, and substitute an insipid correctness in its place (*b*). It is al-

(*b*) Evenit plerumque ut hac diligentia deterior etiam fiat oratio.—— Nam illa quæ curam fatentur, et ficta atque composita videri etiam volunt, nec gratiam consequuntur, &c.

QUINT. *Inst. Orat.* lib. viii. præm. Nec promptum est
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most better to give fancy an uncontrouled range, than to break its vigour by the continual restraint of an overscrupulous judgment. Puntormo is said to have possessed a degree of genius sufficient for producing pictures which obtained the approbation of Raphael and Michael Angelo; but the excessive scrupulousness of his judgment rendered his genius in a great measure useless; he not only was extremely tedious, but also could never please himself, or be satisfied with any of his own works. It was the same cause that made Virgil enjoin his friends to burn the *Æneid*; it was not finished with all the exactness that the nicety of his judgment required: had the injunction been obeyed, it would have been a striking instance of the effects of very great genius blasted by an excessive degree of judgment (*c*). In the arts,

dicere, utros peccare validius putem, quibus omnia sua placent, an quibus nihil. Accidit enim etiam ingeniosis adolescentibus frequenter ut labore consumantur, et in silentium usque descendant nimia bene dicendi cupiditate. Id. lib. x. cap. 3.

(*c*) Protogenes, whom Apelles blamed for hurting his works by correcting them too much, and Leonardi da Vinci, who left many of his pictures unfinished, because he could not finish them suitably to his high idea of perfection, are opposite examples here; but having had occasion to quote them elsewhere, the former, *Essay on Taste*, Part II. sect. 6. the latter, *Ibid.* sect. 5. I was unwilling to use a repetition.

then, an uncommon acuteness of judgment is so far from constituting genius, that it will absolutely destroy genius, unless the imagination be as uncommonly comprehensive. The former faculty must not have greater accuracy than is proportioned to the extent and vigour of the latter. Judgment must preserve imagination from losing itself in its excursions, without obstructing its visiting freely all the regions of nature. It must prevent unnatural associations, without checking such as are bold. It must regulate, but not destroy the impetuosity and ardor of the soul. It has been observed that, though systems of precepts in the arts, direct and improve the judgment, they rather curb and restrain genius. They render men so studious to avoid faults, that they scarce aim at beauties. It is remarked that, when works of imagination have been brought to the utmost degree of correctness in any age or nation, there has been afterwards very little display of original or extensive genius. This may have been owing in part to natural causes, which seem never to suffer an age illustrious for arts and sciences, to be of long continuance: but it has probably been owing in part likewise to
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the cause that is more commonly assigned ; That a taste for correctness being once generally established, the necessity which artists were under of producing this quality, in order to gain approbation, cramped their imaginations and dispirited their works.

S E C T. VI.

Taste essential to Genius for the Arts.

THE observations which were formerly made upon the difference between genius for the sciences, and genius for the arts, in respect of the assistance which they receive from judgment, regarded chiefly the degree and manner in which judgment is exercised in their operations. But these two kinds of genius imply likewise different kinds of judgment.

SCIENTIFIC genius requires only that kind of judgment which has *truth* for its object ; but it requires great strength of judgment in that kind. As that kind includes several species, the predominance of one or another of these, will adapt genius to the correspondent subject of investigation : but any one of

these species prevailing along with a congruous turn of imagination, will produce some form of scientific genius.

GENIUS for the arts does not exclude that kind of judgment which perceives truth : it demands not, however, an eminent degree of it. But another kind of judgment, that which pronounces concerning *beauty*, and is ordinarily called *taste*, is essential to such genius. This is at once a distinctive character of genius for the arts, and a common character of genius in all the arts.

TASTE, as has been already observed in general, influences genius for the arts, in all the same ways in which the discernment of truth influences genius of every kind : and the varieties of taste, and those of judgment, have similar effects in diversifying the forms of genius. Taste regulates fancy, instigates it, and contributes to give it habitual regularity ; it performs these offices more or less perfectly, and performs them in one manner or one respect, or in another, according to the degree in which it is possessed, and the species of it which predominates.

IN the artist, taste exerts itself continually, restraining, regulating, and directing fancy ;
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surveying the conceptions which that faculty has suggested, approving them when they are suitable to it, perceiving what is faulty, rejecting what is redundant, marking what is incomplete, correcting and perfecting the whole. Without this exercise of taste, the first rude conception of a design could never be improved, nor any finished work produced. Taste defers not its decisions till the conception be expressed or the design executed; it not only intermixes them with the execution, but makes them to prevent and direct the execution. Where there is true genius, fancy exhibits its creations so distinctly in the very moment of their production, that an acute taste can perceive what they will be when they are executed, and judge beforehand of their effect. Acuteness of taste sufficient for this, is necessary to the artist. If he had only such a degree of taste as could pronounce, upon a leisurely examination, when the work were actually executed, he must have the whole to begin anew, wherever taste disapproved; and so many things would require alteration, that the labour of finishing any work would be infinite. An imagination truly poetical conceives its ideas in a moment,

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so clearly and forcibly, that a vigorous taste is able to approve or disapprove them before they are put in words or set off by the harmony of numbers. Were the painter incapable of forming a judgment of his designs till he had actually put them upon canvas, he could scarce ever finish a single picture. Every inventor in the fine arts, must possess that liveliness of imagination, and that quickness of taste, which, when united and jointly exerted, can put it in his power to foresee the effect of his conceptions and designs. If his taste be in any respect imperfect, the kinds of faults which that imperfection unfits him for perceiving, cannot be corrected, but will remain blemishes in his works.

WHEN taste has condemned what the artist had imagined, he will of course endeavour to set imagination again a working, and to direct it into another track, that it may suggest something which will be approved. Often it is taste itself that in this case instigates imagination. Its decisions are perceptions which excite the fancy, give it an impulse, and suggest trains of ideas connected with them. When taste condemns, the very nature of the fault which it perceives, often suggests

suggests something that will be approved. When it approves, the view which it takes of its object, may lead to the conception of something which it will still more highly approve. But it is not only by being thus exercised about a person's own productions, that taste gives an impulse and direction to fancy. All the fine arts are, in some sense, imitative of Nature; invention in these arts, is only observing and copying Nature in a certain manner: natural objects and appearances are observed by the artist, they are conceived with distinctness and with force, their characteristic circumstances are selected, and so expressed as to imprint the whole form on the minds of others, with the like clearness and vivacity with which he himself apprehended it. But, in most instances, it is taste alone, that directs and animates his observation of Nature, makes fancy retain a lively conception of it, and run into the view of every thing that can contribute to express it. Without an impulse from taste, imagination could not begin to act. Natural appearances and objects lie open to the observation of all; they are seen by ordinary persons, as well as by the poet and the painter. The former
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take no notice of them, they have no taste to perceive their beauties; but by the latter, these beauties are beheld with delight, and make a strong impression, which rouses imagination to spirited exertions. The former perceives what is exposed to his view, but grossly, faintly, and confusedly; it can give no determinate direction to fancy: the taste of the latter enables him to perceive every feature, character, and circumstance of his object with precision and with force; and in consequence of this, fancy produces a striking likeness, a delineation of it lively and precisely marked. A person may have fine taste, and yet not be a painter or a poet; he may want that brightness of fancy, which these arts require: but if a person be possessed of this, nothing is necessary to make it blaze forth, but a high taste of some object adapted to it. Every peculiarity of taste, by giving a man peculiar feelings from the objects which he observes, leads him into peculiar tracks of thinking, correspondent to it. Many artists in every way, have proposed to themselves, some of the most illustrious of their predecessors, as their standard and their model: in the choice, they were directed by
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the peculiarity of their own taste, approving most the distinguishing excellences of that master; and that taste has been generally powerful enough to give their fancy a direction, and to stamp their performances with a character, similar to his. In all imitations, it is taste that gives genius its particular form and track. Whenever the degree of perfection to which any art has already arrived, leads forward to new improvements, it does so chiefly by means of taste; its judgments on the works already produced, point out new roads of invention to the imagination. In like manner, with respect to the great archetype, Nature, every difference of taste will occasion a correspondent difference in the appearances which engage the attention, and arrest the fancy, and in the point of view in which they are considered; and the range which fancy makes, and the effects which it produces, will always be suitable and analogous to those peculiar perceptions of taste, by which it was put in motion.

TASTE is likewise necessary for forming genius in the arts, to regularity and correctness. It is taste principally that, in this department, perceives when any of the concep-

tions produced by fancy, are unsuitable to the end of the work : without its interposing its judgment on that end being suggested, such conceptions could not be rectified ; without its being in the use of interposing its judgments, imagination could never acquire the habit of generally avoiding them. Irregularity in works of art, is most commonly owing to some defect in taste ; it proceeds from some wildness of imagination, which a perfectly good taste would have subdued. A luxuriant and undisciplined imagination may introduce into a picture some figure or attitude, or into a poem some scene or description or image, which counteracts the general effect, or is inconsistent with the prevailing qualities of the piece ; it may blend something mean with a great subject, or something ludicrous with a solemn one : taste sufficiently acute would perceive the incongruity with so high disgust, as to prevent imagination from dwelling upon it so long as fully to conceive it, as at least to reject it whenever it saw it represented, and as to take from imagination by degrees all propensity to run into what were so abhorrent from its views. The kind of irregularity into which
any

any artist runs, will always be that which his particular taste is most unable to correct.

BY acting upon imagination in these several ways, by checking, by instigating it, by giving it regularity, taste has very great influence on genius, and the varieties of taste contribute much to diversify the form of genius. A person's genius and his taste are correspondent. What he approves, and what he can produce, are of the same kind, and marked with the same character. Every peculiarity of taste shows itself in a man's decisions concerning the works of others; it shows itself also in his own works, for by it his fancy is, in a great degree, influenced in producing them.

BOTH judgment and taste intermix themselves with the operations of fancy; but they affect these operations in respects somewhat different. While reason restrains imagination from conceptions which are contrary to truth, or suggests such as are conformable to it, taste condemns those which are defective in sublimity or grace, and prompts to such as have these qualities. The former rejects what would render the work false or absurd; the latter, what would render it in any degree unpleasing.

THOUGH judgment be a necessary ingredient in good taste, it can never produce it without acuteness of the internal senses. If judgment be strong, but these senses weak or wanting, the exertions of genius may be regular and vigorous, so far as judgment could affect them ; but they will be feeble and irregular in those qualities which are the proper objects of taste. This is observable in almost all the productions of rude ages and unpolished nations, often to a very great degree. In every age, some person, even among those who are in several respects approveable, betrays, in some one particular, a coarseness of genius inconsistent with good taste. Images which are low or coarse, may illustrate a subject with great exactness or force ; to mere reason they would therefore appear unexceptionable ; but the least delicacy of taste would be disgusted with them, and prevent their admission. To authors who indulge themselves in the use of them, we may allow strength of judgment, but must refuse taste : they may have force, but want elegance of genius. In the most judicious and eloquent compositions of our forefathers who lived some centuries ago, similitudes, allusions, and incidents are introduced, so homely or so indelicate, that a nice taste would

would be disgusted with the very repetition of them as examples. Every one has heard of the low and dirty representations introduced into some of the Dutch paintings. When such appearances are very strong, we enter readily into the distinction between judgment and taste; we pronounce the author destitute of the latter, and to this cause ascribe the grossness of his genius; though the appearances be not so palpable, we pronounce that incorrectness or indelicacy of taste has infected his genius: in both cases we can perceive the difference between that influence which judgment has upon works of genius, and that which the internal senses have.

THESE senses may, on the contrary, be strong where judgment is inaccurate. In this case, the artist is qualified for such particulars as contribute to the beauty and elegance of his work, but not for those which render it just and solid. The materials which imagination presents, will be applied so as to please on a superficial view, rather than to satisfy on a careful examination. This effect is observable in poets who are brilliant without solidity, and in orators who are florid but not argumentative.

CONSISTENTLY with goodness of taste, either judgment or internal sense may predominate in its composition : a work will always bear marks of the predominance of the one or the other. Congreve possessed an elegant taste, as well as a sparkling imagination ; but a nicer judgment would have repudiated many of his flashes of wit, as being unnatural. In the performances of Pietro Testa, sublime and noble ideas, a profusion of figures strongly marked, elegance and exactness of drawing, show exuberance of fancy and enthusiasm of genius, united to taste in many respects exquisite ; but incoherence of design, and a jumble of unconnected figures, render it difficult to discover his aim, and turn many of his works into groupes of monsters and chimeras : the exertion of a more accurate and better informed judgment, would have prevented this wildness and extravagance (a). Correggio shows exquisite judgment in the conduct of his pieces and the union of his painting ; ungracefulness in some of his attitudes, an unpleasing disposition of his groupes, and incorrectness of drawing, betray a taste not, in all respects, fully proportioned to it. Accu-

(a) *Essay on Prints*, chap. 3.

rate *judgment* of the anatomy of the human body, rendered his drawings perfectly correct; a *taste* as accurate, would have rendered them equally elegant (*b*). The orations of Demosthenes and of Cicero bear plain marks of a diversity of taste, as well as of imagination; they show that the taste of the former held very much of judgment, and the taste of the latter, of sentiment or feeling. Demosthenes is the more convincing, Cicero the more pleasing orator. The sermons of Barrow and of Seed, are both eloquent; but in very different ways: the former shows a copious imagination united to the soundest understanding; the latter a bright and flowing fancy combined with quick and elegant feelings.

THERE are different qualities in the works of genius which fall under the immediate cognizance of judgment, and which require different kinds of judgment. If an artist be defective in the kind of judgment adapted to any one of these qualities, he cannot direct his imagination in producing it, though in producing other qualities, to which his understanding is adapted, he may be very judicious. Both the disposition, for instance, of the whole

(*b*) FRESNOY'S *Judgment of Painters*.

performance, and the justness of particular parts, are objects of judgment; a work may be perfect in one of these respects, and inferior or faulty in the other. Among the ancient painters, Amphion excelled in the former, Asclepiodorus in the latter (*c*).

IN like manner, if a person possesses any one of the internal senses in great perfection, his imagination will never want a prompter and a guide in producing the qualities which are the proper objects of that sense; while it may fail much in producing the qualities adapted to such other senses as he possesses in an inferior degree. Zeuxis was esteemed the first of the ancient painters in respect of colouring; Euphranor was admired for the sublimity of his works; both were censured for neglecting proportion in some particulars (*d*): the former showed an exquisite sense of one species of beauty, that of colours; the latter, a taste for the grand and noble; taste for the

(*c*) Nec debbat Amphioni de dispositione, nec Asclepiodoro de mensuris. PLIN. *Nat. Hist.* lib. xxxv. cap. 10. Eadem ætate Asclepiodorus fuit, quem in symmetria mirabatur Apelles. *Ibid.*

(*d*) Deprehenditur tamen Zeuxis grandior in capitibus articulisque. PLIN. *Ibid.* cap. 9. Euphranor—primus videtur et expressisse dignitates, insignia heroum, et usurpasse symmetriam: sed fuit in universitate corporum exilior, capitibus, articulisque grandior. *Ibid.* cap. 11.

beauty of proportion was not perfect in either. Aristides was defective in the particular in which Zeuxis excelled, in taste for beauty and softness of colouring, as well as in the power of producing it: but in expressing the passions and affections, he excelled all his predecessors (*e*); he possessed a quickness and acuteness of feeling, which fitted him for conceiving strongly, and consequently for expressing forcibly, the traces with which the inward emotions mark the features and the attitude. It was the character of Pyreicus, that he painted only mean subjects, but painted them with great beauty (*f*): this showed taste, in one respect grovelling, and in another respect elegant. A similar conjunction is very remarkable in Swift: his writings put it beyond doubt that he was ingenious, in many respects judicious, and possessed of a taste for correctness and elegance of composition; but they abound with low subjects, gross ideas, and dirty images, inconsistent with delicacy of sentiment.

(*e*) Is omnium primus animum pinxit, et sensus omnes expressit, quos vocant Græci $\psi\delta\tau\epsilon$; item perturbationes: durior paullo in coloribus. PLIN. *Ibid.* cap. 10.

(*f*) Humilia quidem secutus, humilitatis tamen summam adeptus est gloriam. PLIN. *Ibid.*

SENSIBILITY of taste, is necessary to its perfection ; it makes a person feel strongly every beauty or blemish which he perceives. A lively imagination can never exist where sensibility of taste is wanting ; or if it could, all that it produced would be frigid and spiritless ; no object could make an impression sufficient to give it a brisk and active motion. A great degree of sensibility, if the other perfections of taste were wanting, joined with a fancy proportionably lively, would carry an artist into wildness and extravagance. But if the sensibility be not excessive, and if it be accompanied by the other perfections of taste, it will only raise vivacity of imagination to a proper pitch. It is enraptured by every striking form, it fills the soul with high enthusiasm, it sets the fancy on fire, it pushes it forward with impetuosity, renders all its conceptions glowing, and bestows a freedom and becoming negligence on its productions. When a taste of this construction exercises itself about what fancy is producing, it approves with so high a relish, or disapproves with so quick a disgust, as communicates new vivacity and force to the efforts of imagination. Great sensibility of taste contributed not a little to Giorgione's

gione's freedom of drawing, strength of colouring, and of relief; and to the boldness, rapidity, and even extravagance, which are remarked in Tintoret's manner.

REFINEMENT and elegance of taste has an effect on fancy, in some respects opposite to those of sensibility. Where it prevails, it hinders many forms and appearances striking to others, from yielding it such gratification as may make an impression on the fancy. There is no risk of its running into extravagance; the danger is, lest it deviate into quaintness, affectation, and subtilty. Vicious refinement is pleased with these, and sends imagination in search of them; they are adopted, and usurp the place of natural beauties. But true refinement of taste leads imagination to reject whatever is coarse, or even of inferiour beauty, and, penetrating into such beauties as are most latent, feeling such as are most delicate, and comprehending such as are most complex, it enables them to affect and give an impulse to fancy, and directs it to produce not only what is beautiful, but what is elegant, not only what pleases, but also what fills the taste, to produce according to the particular structure of the imagination, the grace-

ful, the profound, or the extraordinary. The artists of simple ages, can scarce attain so great a refinement of taste, as to avoid, in every instance, ideas which will appear gross and become unpleasing in politer times. Even Homer admits images in some degree coarse and indelicate; Virgil, bred in the elegance of the Augustan age, was directed by an improved taste, when he imitated him most closely, to reject some of these images altogether, and to avoid the offensive part of others. It is the want of perfect elegance of taste formed by acquaintance with the best models, that has mixt stiffness and ungracefulness with the great excellences of Albert Durer, Hans Holbein, Rembrandt, and even Rubens.

CORRECTNESS of taste secures a person from approving any but real beauties, or disapproving any but real faults, and enables him to perceive the precise kind and degree of both. The justness of its decisions often gives occasion to a new exertion of imagination, where otherwise it would not have been attempted. But it influences imagination principally, not by instigating, but by restraining and directing it, and forming it to regularity. A great degree of correctness will perfectly

perfectly chill a weak imagination, and prevent its producing any thing. It is related of Andrea Verrochio, that he was so sensible of the inferiority of his own figures to one which Leonardo da Vinci, then his scholar, had by his order painted in one of his pieces, that he never afterwards attempted painting; had his taste determined less justly, he might have continued to produce works deserving approbation. If it does not totally chill a moderate fancy, it will at least check it so much as to produce a mediocrity, where nothing is faulty, but nothing pleases highly. It is the character of Andrea del Sarts, that he is careful, diligent, and correct, but defective in life and spirit. Even the fine genius of Protogenes suffered, in the opinion of Apelles, by the too great correctness of his taste leading him to dispirit his pictures by excessive care. Correctness of taste has disciplined Pope's genius so much, that some have refused him all pretensions to imagination. It is an imagination uncommonly bright and vigorous, that can bear all the restraints which a correct taste lays it under. It requires these restraints; without them, great blemishes will be intermixed with great beauties in its works: by
submitting

submitting to them, the immortal works of Milton would have been cleared of the conceits and quibbles which disgrace them.

PERFECTION of taste requires the union, the due proportion, and the regular adjustment of all its principles. If any principle of taste be wanting, or weak in comparison with the rest, imagination misses both the regulation and the impulse which that principle would have given it; and its productions bear marks of its having missed them. Every poet, every painter, every artist, who leaves in his works what is disgusting to one of the principles of taste, while he satisfies the other principle, shows a defect in their comparative vigour. They were never perhaps united in any man in a proportion perfectly exact; while none is wanting or remarkably defective, some degree of imperfection is always perceivable in some one of them, and some other is so exquisitely perfect as to give taste its predominating character; but still the vigour in which they all exist, is sufficient for giving taste enlargement and regularity. When a taste so perfect is united to a vigorous imagination, it produces genius in some sense universal, fit for rendering its work really, though not equally, excellent

cellent in all respects, marked with features correspondent to the characteristical form of that taste. It is a piercing imagination thus directed by a fine taste, that has entitled a few artists in every way to the first rank. Neither Homer nor Virgil is absolutely faultless; each has his principal and distinctive excellence; but both have so much excellence in every kind, as could not have been attained without perfection of taste, as well as of imagination. Titian's taste in drawing was not exactly correct; strength and beauty of colouring was his leading excellence, and showed the prevailing turn of his taste, which was, at the same time, in all other respects so good as to guide his fancy and his pencil into great delicacy of drawing, agreeable resemblance of Nature, spirited and characteristical touches, diversified and graceful attitudes, pleasing negligence of drapery, and in a word no ordinary degree of every excellence. It was the praise of Raphael, that, though he fell short of some in colouring, yet while he surpassed in grace, he likewise was master of more of the excellent parts of painting than any other artist. It was a like universality of taste, along with great power of imagination, that enabled

Hannibal

Hannibal Carracci to unite in himself the perfections of all former artists, and to imitate them at his pleasure.

IN a word, every work of genius must, in its characteristical excellences and defects, bear plain marks of the degree in which its author possessed any of the perfections of taste. Every man's peculiar taste, exerting itself along with his imagination, puts him on searching for such conceptions as it most relishes, on moulding them into that form which suits it best, on adopting such as it approves, on avoiding and rejecting whatever it disapproves.

I SHALL take occasion here to remark a difference between genius for science, and genius for the arts, resulting from the diversity of all the powers employed in these two departments, and of the manner in which they are employed, a difference that, for this reason, falls not properly under any of the particular heads hitherto considered. The exertions of scientific genius have in their nature a certain sedateness, gravity, and austerity: genius for the arts operates with a kind of sprightliness, gaiety, vivacity, or impetuosity. This difference may be accounted for from the observations which we have already made.

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IT arises in some measure from the different degrees and manners in which *judgment* is exercised in these two kinds of genius. All the exertions of judgment about truth, are in their nature cool and composed; and in the operation of scientific genius, these exertions are almost uninterrupted. An idea is no sooner suggested than it is examined, scrutinized, and reasoned upon, and deliberately pursued through all its consequences: this exercise calms, and as it were depresses the soul, and gives a cast of seriousness to the operation of genius in investigating truth. Invention in the arts, requires not so continual an exercise of judgment, and therefore wants that cast. The exertion of judgment has a greater degree of sedateness, and more depresses the soul, when reasoning is necessary, than when the decision is intuitive; and the more intricate and laborious the reasoning is, the greater is the sedateness and seriousness with which it is pursued. In scientific invention, judgment is exercised chiefly in reasoning. But in the arts, an idea suggested, generally appears fit or unfit at first sight, and is adopted or rejected in an instant; even when it needs to be canvassed, this is done without a laborious scrutiny,

scrutiny, and therefore without introducing solemnity of disposition.

THE perception of *truth* is an indifferent feeling ; the sentiments of *taste* are not indifferent : the conclusions which the philosopher forms in the course of his investigation, are apprehended without any sensation of pleasure ; the work of the artist, in the several steps of his progress, is continually gratifying his taste, giving him sensations of delight, and by means of these elevating his mind and enlivening his temper. The inventor in science has often indeed high pleasure from the consciousness of success ; but the artist enjoys this in common with him, and has all the pleasures of taste superadded to it. If the philosopher's pleasure in the gratification of his curiosity is to be considered as distinct from the agreeable consciousness of success, yet it is a satisfaction of a more sedate nature than most of the gratifications of taste, and therefore less fit for enlivening the soul.

THE exertions of the *imagination* have in themselves something brisk and sprightly ; but those exertions of it, which enter into scientific genius, have less of this character than the flights of fancy roaming through all the

remotest relations, and often likewise animated by the influence of the passions, which take place in the arts: and consequently, scientific genius would be more sedate and composed than the other kind, though the continued and laborious interposition of judgment did not check the natural gaiety and impetuosity of imagination. The mind is perhaps occupied with equal intenseness in both kinds of invention; and hence enthusiasm is common to both kinds of genius: but the mind is occupied in different ways; different faculties of it are principally engaged. In science, judgment is employed as much as imagination; and in scientific genius, that complexion is predominant which marks the exertions of the former: its operations are sedate and composed, and it is generally attended with solidity of temper, and with a character whose very peculiarities have a certain gravity and stayedness. In the arts, judgment is less frequently interposed, and it is interposed with less labour, imagination is left at liberty to pursue its course without a continual check, and therefore pursues it with a sort of alacrity and chearfulness, heightened by the ever returning approbations of taste: genius for
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the arts, partakes generally in this temperament of imagination; it is sprightly in all its motions, and is often accompanied with a turn of character gay, untaid, or desultory. Sometimes indeed a melancholy cast is found along with great genius in the arts; when it is, it proceeds either from a similar cast of imagination, or from quick sensibility, the common attendant of a lively fancy and a delicate taste, too strongly affected by the gloomier views of human life.

S E C T. VII.

The Power of Execution necessary to Genius for the Arts.

SCIENTIFIC genius compleats its operations by *invention*; at least, very ordinary talents are sufficient for *expressing* its discoveries, and it is not considered as suffering a very great diminution of its proper merit, from the want of ability for elegant expression: but genius for the arts implies, in every case, not only the power of invention, but also the power of *execution*. In different arts, the manners of expression, or

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the instruments of execution are so different, that, without entering into the peculiarities of these, it is not possible to explain fully this part of genius. But a capacity of employing some instrument, so as to express the conceptions of the imagination, is common to genius for all the arts. Some observations will, therefore, be proper, concerning that capacity, so far as it is thus common. This is all that we shall attempt at present.

A CAPACITY for execution is sometimes found in a person who has no power of invention; but when it is, it implies not any degree of genius. There are mechanics who can execute a machine from ~~the~~ model or pattern, with great dexterity and neatness, who could not have contrived that machine, who could not so much as have conceived it from a description, and who could not make any improvement on the structure of the simplest utensil. There are persons who can paint very exactly after a copy, but could not design an historical picture, or a landscape, nor even draw a portrait from the life. Persons incapable of musical invention, may yet be admirable performers. In poetry, a power of execution separated from every degree of

the correspondent invention, is perhaps more rare than in any of the other arts; yet there are tolerable versifiers, who could not derive from their own fund, any part of the plan of a poem. It would be an impropriety to attribute genius to such persons; it is scarce ever attributed to them, by those who think with the least precision; the capacity which they shew, is sometimes termed ingenuity, but it is always distinguished from that sort of ingenuity which belongs to invention :

Distat ab ingenio longe manus,——(a)

says a writer on painting; the observation is applicable to all the arts.

ON the other hand, there may be some degree of invention in a particular art, without a capacity of correspondent execution. A person may compose in music, who cannot perform. Many have invented the subject of a picture; and in idea designed the whole of it, so that, from their description of their conception, a master might execute it, though they themselves never used the pencil. Others might proceed a step farther; they could sketch out the piece, without being able to

(a) *FRESNOY de arte graph. ver. 494.*

colour it. It is remarked of Pietro Testa, that in drawings, his execution is both masterly and correct, but notwithstanding this, and notwithstanding his having possessed invention sublime and exuberant, he attempted often, without success, to acquire the art of colouring. In like manner, a person may conceive the whole plan of a poem, and even express it agreeably in prose, who cannot cloath it with numbers. The Telemachus of Fenelon is a direct example of this. Such persons possess real genius, and perhaps a high degree of it, so far as it extends: but they show not a genius complete in the art to which it points. In order to compleat genius in any of the arts, a man must possess the power of employing a proper vehicle, congruous to the nature of that art, for conveying the conceptions of his imagination to the senses and the souls of other men. It is this that puts it in the power of genius to show itself: without this, its finest conceptions would perish, like an infant in the womb; without this, the brightest imagination would be like a vigorous mind confined in a lame or paralytic body. Want of skill in execution was, perhaps, the only thing that hindered some of

the earliest painters, and some of the first restorers of the art, who are now neglected and almost forgotten, from obtaining a very high rank.

IN every art, expression contains something mechanical. In painting, the management of the pencil; in music, the use of the instrument; in poetry, the artifice of numbers, or dexterity in versifying, are in a great measure mechanical. So far, expression may be learned; and without exercise, no person can become perfect in it. The greatest geniuses have been sensible of this: Apelles made it a rule to paint something every day (*b*). Titian for many years copied whatever he undertook, with great labour and care, that he might thus acquire an easy manner (*c*). But there are many whom no exercise or instruction will be sufficient for rendering masters of it. A certain turn of mind is necessary for acquiring it: and that turn of mind which fits a person for learning easily and well the mechanical part of expression in any particu-

(*b*) Apelli fuit aliquin perpetua consuetudo, nunquam tam occupatam diem agendi, ut non, lineam ducendo, exerceret artem; quod ab eo in proverbium venit. // *PLIN. Nat. Hist.* lib. xxxv. cap. 10.

(*c*) FRESNOY'S *Judgment of Painters*.

lar art, is an ingredient in genius for that art.

A GOOD deal of previous knowlege is likewise necessary for a person's executing in any of the arts. Knowlege, for instance, of the words of a language, of its structure, of the measures which suit it, is prerequisite to the poet; knowlege of anatomy, of perspective, of the nature of colours, to the painter. But a turn of mind congruous to the particular kind of knowlege, will assist him greatly in acquiring it; and an imagination suited to any of the fine arts, is absolutely necessary for enabling him to perceive, nay for prompting him to consider, how his knowlege may be applied to that art. In the moment of execution also, imagination is employed in suggesting this knowlege, and rendering it subservient to the present purpose. Such a turn of mind, and such a structure of imagination, as fits for this, is necessary for compleating a genius for the arts.

THE power of expression, so far as it differs both from mechanical dexterity, and from knowlege acquired by study, consists perhaps entirely in a capacity of setting objects in such a light that they may affect others with the

same ideas, associations, and feelings, with which the artist is affected. This capacity arises chiefly from such force of imagination as at once renders the conception of things precise and definite, and leads a person to foresee readily what effect every touch in the expression will produce, or to conceive quickly the proper means of producing any desired effect. This is obviously resolveable into association, and therefore will, in every art, be found to spring from the same principles of the mind, which form the source of invention in that art. It is quickness and readiness in thus foreseeing and conceiving, that in a great measure renders the execution spirited; it alone can prevent the necessity of frequently altering and retouching, which never fails to produce deadness and languor.

It sometimes happens that particular circumstances render it impossible to employ the most obvious and direct means of producing a certain effect. It shows great power of expression to contrive readily, in such a case, some other means less obvious. The most natural means of marking the principal figure in a picture, is by the strength of the lights; a peculiarity in the disposition may sometimes
 prevent

prevent the painter from using this means, and he may notwithstanding render his principal figure conspicuous, by a peculiarity in the colouring. The contrivance of Timanthes, an ancient painter, is well known, and has been often applauded: in the sacrifice of Iphigenia, being unable to give to the father a greater degree of sorrow than he had given to the other spectators, he produced the same effect by concealing his face (*d*).

It always shows real genius to execute one's beautiful inventions by the instruments and in the manners which are well known, and have been long in use. But a much greater degree of genius was displayed by those artists who first brought these instruments into use, or who considerably improved the manner of using them. If it be true that

(*d*) Ejus enim est Iphigenia, oratorum laudibus celebrata: qua stante ad aras peritura, cum mœstos pinxisset omnes, præcipue patrem; cum tristitiæ omnem imaginem consumpsisset, patris ipsius vultum velavit, quem digne non poterat ostendere. *PLIN. Nat. Hist. lib. xxxv. cap. 10.* Ut fecit Timanthes, ut opinor, Cithnius, in ea tabula qua Colotem Teium vicit. Nam cum in Iphigeniæ immolatione pinxisset tristem Calchantem, tristiores Ulyssæm, addidisset Menelao quem summum poterat ars efficere mœrorem, consumptis affectibus, non reperiens quo digne modo patris vultum posset exprimere, velavit ejus caput, et suo cuique animo dedit æstimandum. *QUINT. Inst. Orat. lib. ii. cap. 15.* See also *VALER. MAX. lib. viii. cap. 11.*

Apollodorus was the first who had the art of expressing the lights and shades in painting, he by this showed a higher genius in expression, than they who have, even with the greatest success, practised that art, since he discovered it. Correggio showed great originality by introducing a new and peculiar manner of distributing lights, so as to give uncommon force and roundness to his pictures (*e*). The poet who first introduced a measure adapted to a particular sort of subjects, and used it properly, has a claim to genius in expression, superior to theirs who have afterwards written poems in that suitable measure. Spenser's stanza may be regarded as one indication of his genius, though the imitation of it by others has been sometimes censured as injudicious.

IT generally happens, that the expression of an artist, bears the same character with his invention. It is natural that it should; the imagination influences both, by many of the same principles. Pindar's fancy was wild, his versification also is irregular. Pope's imagination was correct, so is his verse. But sometimes, the invention and the expression

(*e*) FRESNOY'S *Judgment of Painters*.

are of different complexions. In invention Pietro Testa was enthusiastic and incoherent, but his drawing was elegantly correct. Such dissonance between the two operations of genius in the arts, may arise from a dissimilarity in the turn of his imagination and his taste. It may arise likewise from a defect, or from an excellence, in the mechanical part of expression. A defect in this will render the organs unable to do justice to the conceptions. The best poet may express his ideas to great disadvantage by writing in a dead or foreign language. Freedom and easiness of invention is ascribed to Simon Memmi, but the art of painting was in his time so much in its infancy, that his execution could not throw off the contrary character of stiffness. The earliest works even of Raphael and Titian, show some dryness in the execution, incongruous to their other excellences, owing either to the want of practice, or to the imperfect manner of their masters (*f*). On the other hand, a great dexterity in the mechanical part, may raise the execution to a degree or kind of excellence, far beyond the artist's power of invention. Many painters have very happily

(*f*) *Ibid.* and *Observations on his Art of Painting.*

copied a manner of execution very unlike to their own turn of genius.

S E C T. VIII.

Of the Union of different Kinds of Genius.

THE sum of what has been said, is this : scientific genius arises from such vigour of imagination as disposes a person to be affected chiefly by the strongest and most important relations of things, particularly by causation and co-existence, operating powerfully, giving a propensity to set every object in that attitude in which it lays a foundation for these relations ; and making all the other principles of association to act in subordination to these ; and it requires the assistance both of an exact and solid judgment, and of an accurate and distinct memory. Genius for the arts springs from such liveliness of imagination as disposes a person to attend chiefly to those qualities of things, which lay a foundation for relations between them and many others, to be affected by the slightest degrees of relation, or by the more trivial relations, especially to be actuated by resemblance, as his predominant and leading principle of association ;

ciation; with a memory fimilarly turned; and it requires for compleating it, a quickness of difcernment, and great acuteness and liveliness of taste; together with the power of imparting, by means of some sensible instrument, his own sentiments and conceptions to other men.

ALL the principles combined in genius, are very differently modified in these two species of it; in some principal respects, the modifications are even opposite. This abundantly exposes a conceit, which has been very crudely thrown out by some (*a*), in opposition to the plainest experience, That a man who has genius in one way, will have equal genius in any other way to which he is pleased to turn himself with equal application; nay, that there is no original difference between those who display the greatest genius, and those who show none: but that all the difference between genius and no genius, between genius of one kind and of another, arises from education, study, adventitious causes, and acquired habits. The assertion is irreconcilable to the commonest appearances in human life; and in the whole course of this

(*a*) See RUFFHEAD's *Life of Pope*.

enquiry, we have found that there are, in the principles of human nature, original and permanent varieties which must produce remarkable differences in point of genius.

FROM these varieties it would rather seem to follow, that genius for science, and genius for the arts, are incompatible. But this would be the contrary extreme: experience shows that they are not. Not to mention those who have displayed genius in science, and in the arts most analogous to science, as those who have been both philosophers and orators; even more dissimilar forms of genius have been united. Among the ancients, Pamphilus was at once a painter, and a mathematician (*b*). Metrodorus was reckoned one of the most learned philosophers, and likewise one of the most skilful painters, that Athens produced in his time (*c*). Among the moderns, Leonardi da Vinci was a painter, sculp-

(*b*) Sed primus in pictura omnibus literis eruditus, præcipue arithmetica et geometria. PLIN. *Nat. Hist.* lib. xxxv. cap. 10.

(*c*) Eodem tempore erat Metrodorus pictor, idemque philosophus, magnæ in utraque scientia auctoritatis. Itaque cum Lucius Paulus, devicto Perseo, petisset ab Atheniensibus, ut quem probatissimum philosophum mitterent sibi, ad erudiendos liberos, itemque pictorem ad triumphum excolendum, Athenienses Metrodorum elegerant; professi eundem in utroque desiderio præstantissimum. PLIN. *ib.* cap. 11.

tor, architect, musician, and at the same time a chemist and mathematician. Augustine Carrachi was a very good painter, excelled in engraving, succeeded in poetry, and showed a turn also for music, rhetoric, natural philosophy, and mathematics. It is remarkable that both Titian's son Horatio, and Parmegiano, entered so deep into chemical researches, as by them to impoverish themselves. Hogarth's *Analysis of Beauty* shows that he had genius for philosophical investigation; and his genius in his own art, was very high. Halley, with a great degree of mathematical genius, showed some degree of the poetical. Beattie's *Essay on Truth* shows him to be a philosopher; his genius in poetry is confessed. An union of different kinds of genius cannot take place except when all the associating principles have a considerable degree of strength, and the imagination is, at the same time capable of a very lively and commanding impression from the particular end that is in view. It arises directly from that *flexibility* of imagination, which was sufficiently explained already (d). Great flexibility joined even to a moderate fancy, will produce a

(d) Part II. sect. 8.

little

little genius in various departments ; joined to a fine imagination, it will enable a man to excel in various ways : the finest imagination, with little flexibility, will be confined to one way, or at most be excellent but in one.

INDEED, even when a person unites in himself different kinds of genius, it will be generally found, that he excels only in one department, and that in others his genius is of an inferior order. In the subject to which his genius is most adapted, it exerts itself with vigour ; it follows the associating principle which is naturally prevalent. In the subject to which it is less adapted, it operates more heavily ; it follows an associating principle which is by *foreign* causes forced into a temporary predominance. The effects of genius in the former case, are like fruits suitable to the climate, which attain their perfect flavour ; in the latter, they are like fruits raised by artificial heat, in a climate not proper for them, which remain insipid, and never reach their full maturity. Under the guidance of the principle of association naturally predominant, the other principles operate with such alacrity as subjects show in serving their rightful king ; under the guidance

dance of any other principle, their operation resembles the spiritless backwardness with which a people obey an usurper or a conqueror.

WHEN a person's genius is naturally turned to one of these objects, science or the arts, it will require very powerful causes to lead him to exert it about the other. It will perhaps be found, that almost no person has done so, except when he was impelled to it by a peculiar education, by very forcible example, by being thrown into a way of life which required it, or by circumstances of the like nature.

It may likewise be remarked, that, in some instances, perhaps in some of those formerly produced, the union of these dissimilar forms of genius, is only apparent, not real. *Genius* in one way, has been accompanied, not by the power of invention, but merely by *capacity*, in the other way. It must be owned, that generally Nature is more frugal of her gifts, than to lavish on one man, very unlike modifications of genius. The greatest inventors in science, have scarce ever shown genius in the arts. Aristotle was perhaps the most inventive among the ancient philosophers; and his style, though very precise, exact,

exact, and suitable to the subtilty of philosophy, shows a turn of mind, little adapted either to poetry or to eloquence; even his critical works display more of cool judgment, patient attention, and deep reflection, than of that ardor of taste, which never fails to attend genius for the fine arts. On the other hand, the greatest geniuses for the arts, have generally betrayed a want of that precision and depth which are necessary for scientific investigations.

SOME have supposed a distinctive peculiarity so strongly impressed by Nature, on every man of genius, as to assert, that the same person can scarce excel in two different arts, however analogous; that no writer, for example, ever almost succeeded both in verse and prose; nay, that the same person cannot excel in both the species of dramatic poetry, tragedy and comedy (*d*). In support of such assertions it is remarked, that none of the ancients undertook both these species of the drama; and with the same view, the wretchedness of the Roman orator's poetry is often mentioned. It would be unjust, however, to estimate the compass of human genius

from such instances. Homer, the father of the epic poem, hath left a work wholly of the ludicrous kind. It would perhaps be difficult to determine whether Shakespear possessed greater excellence in tragedy or in comedy; that he possessed very great excellence in both, is unquestionable. In both, several other moderns have shown real genius. Many have likewise been both orators and poets. But after all, it must be owned that, in most cases, a man's genius fits him not only for science alone, or for the arts alone, but also for one science, or for one art. Many have shown genius either in mathematics, or in natural philosophy, or in the philosophy of the mind, who have discovered none in the rest of these branches. It appears from Pope's letters, that he applied to painting with considerable eagerness, it does not appear that he discovered any great degree of genius for painting; for music, it is said that he had not even a considerable capacity, though he shows the quickest sense of the harmony of verse; if it be true, it would appear that, among the arts, his genius confined him almost wholly to poetry. In humorous painting, Hogarth was unrivalled; he attempted portrait-paint-

ing, it is said, with the most wretched success.

It seems then to be the common, though not strictly the universal, law of human nature, that genius fits the person who is endued with it, for invention in some one particular art, or particular science. Still, therefore, there is room for enquiring, by what minuter varieties of the powers combined in genius, these subordinate differences of its form are fixt. The enquiry would be laborious and intricate, but it would be curious, and, perhaps, not without utility.

THE END.

E R R A T A:

In the Text.

Page 76. line 19. *for* constructing, *read* inventing. P. 84.
l. 14. *for* altogether, *read* all together. P. 125. l. 8, 9.
read in making them to suggest one another. P. 252. l. 9.
for bring, *read* brings. P. 409. l. 14. *for* Sarts, *read* Sartō.
P. 410. l. 14. *for* principle, *read* principles.

In the Notes.

Page 11. l. ult. *read* magnumque. P. 20. l. 8. *for* (;),
place (,) after γαλαξι. Ib. l. 9. *for* ζῶα, *read* ζῷα. P. 24.
l. 6. *for* videre, *read* videri. P. 29. l. 2. *for* αἰσθησις, *read*
αἰσθησις. l. 5. *for* μνημονεύειν, *read* μνημονεύειν. l. 6. *for* διπίσασθαι,
read δ' ἐπίσασθαι.

11. *Conium maculatum* L. (Poisoning)
The plant is a biennial herb with a thick, knotted root. The leaves are opposite, ovate, and have a finely serrated margin. The flowers are small, white, and arranged in a terminal raceme. The fruit is a small, round, red berry. The plant is highly poisonous, especially the root, which contains the alkaloid conium.

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